DOCUMENT RESUME

ED 275 693 TM 860 568

AUTHOR	Rosenfeld, Michael; And Others
TITLE	Analysis of the Professional Functions of Teachers. Relationships between Job Functions and the NTE Core Battery.
INSTITUTION	Educational Testing Service, Princeton, N.J. Center for Occupational and Professional Assessment.
REPORT NO	ETS-RR-86-8
PUB DATE	Mar 86
NOTE	180p.; Some tables contain small type.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC08 Plus Postage.
DESCRIPTORS	*Construct Validity; *Content Validity; Elementary School Teachers; Elementary Secondary Education; Employment Qualifications; *Evaluation Methods; Interrater Reliability; Interviews; *Job Analysis; Licensing Examinations (Professions); Minimum Competency Testing; National Competency Tests; *Occupational Tests; Questionnaires; Secondary School Teachers; Teacher Certification; Teacher Evaluation; *Teaching Skills
IDENTIFIERS	*National Teacher Examinations

ABSTRACT

This study was undertaken to further document content validity and to provide evidence of construct validity of the National Teacher Examinations (NTE) Core Battery, using an alternative strategy. This strategy involved identifying the important job functions and professional knowledge areas of teachers. A multi-method approach was used to identify job tasks and professional knowledge without regard to grade level. The following information sources and procedures were used: (1) literature search; (2) advisory committees; and (3) interviews with teachers and administrators. The draft of the "Inventory of the Professional Functions of Teachers" was developed to contain 83 job tasks grouped into five broad areas. Sample School districts located in California, Georgia and New Jersey were selected for intensive study, and inventories were sent to all the teachers and administrators in the districts. Results identified broad functions of teachers as presenting important core job functions. All 59 knowledge areas were judged as being at least moderately important. Thirty-four battery knowledge areas and 23 of the additional knowledge areas were linked to job dimensions. Cumulative evidence from this study provided further support of the job-relatedness of the content domain of the NTE Core Battery for certifying beginning teachers. (JAZ)

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ED275693

ANALYSIS OF THE PROFESSIONAL FUNCTIONS OF TEACHERS

Relationships Between Job Functions and the NTE Core Battery

Research Report—86-8

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ANALYSIS OF THE PROFESSIONAL FUNCTIONS OF TEACHERS

Relationships Between Job Functions and the NTE Core Battery

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Center for Occupational and Professional Assessment
Educational Testing Service
March, 1986

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ACKNOWLEDGMENTS

This report is the visible product of the efforts of a great many people to whom the authors are deeply indebted. The project could not have been completed without the assistance of the members of the Advisory Committees, the members of each of the participating district committees, colleagues at Educational Testing Service (ETS) who assisted at various stages of the work, and last, but very far from least, the many teachers, school administrators and their staff who gave generously of their time and experience by participating in the job analysis survey.

Members of the External Advisory Committee played an invaluable role by sharing their expert knowledge on the responsibilities of and requirements for the teacher's job. The members of this committee who served and their affiliation are provided below:

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Advisory committees were also established in each of the three cooperating school districts. These committees, which included teachers and administrators, assisted in the development of the job analysis inventories, helped to enlist the cooperation of teachers and principals and expedited the effective distribution and collection of the data. The members of these committees included:

California School Districts

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Joan Murphy, Supervisor, Elementary Instruction
Karen Neuhoff, Teacher, Elementary School

Robert Altman, Warren Willingham and Catherine Havrilesky provided timely and valuable advice as members of the ETS Internal Advisory Committee. Samuel J. Messick, ETS Vice President and Distinguished Research Scientist, made both substantive and methodological contributions. Various ETS and NTE program staff provided help throughout the project, and we are especially indebted to Patricia Wheeler of the ETS Berkeley office and Jerry Jenkins of the ETS Atlanta office for coordination and liaison work with regional school districts.

Jerilee Grandy interviewed a number of the teachers and performed other related duties; Donald Rock helped with the experimental design of the study and Tom Jirele performed the statistical analysis. Amanda Moore provided administrative and logistical support, while Sonyetta Robinson and Bernice Ferry typed the many drafts of the project materials and reports.

The views expressed in this report are those of the authors and do not necessarily represent those of the participating school districts, the NTE Policy Council, Educational Testing Service or the many individuals who provided assistance.

EXECUTIVE SUMMARY

Teachers are certified or licensed in many jurisdictions in the United States by a credentialing process that utilizes, in part, the NTE Programs tests produced by Educational Testing Service (ETS).

The NTE Programs consist of three test batteries: a Core Battery of three examinations measuring communication skills, general knowledge and professional knowledge that teachers need to have in order to perform their job; a Pre-Professional Skills Battery (PPST) that measures college-level basic skills in reading, mathematics and writing; and a battery of 28 specialty area tests.

The primary function of the Core Battery, which is the subject of this research study, is to provide objective evidence of knowledge acquired through teacher-training programs, as corroboration of academic preparation for teaching. Before allowing a state to use the tests in the certification process, the NTE Policy Council requires as part of the validation strategy that a panel of experts judge the content of each item for its relevance to the job of teaching and to that particular state's teacher-education curriculum. Only those items judged to be relevant measures of a particular curriculum and the knowledges and skills necessary for the job performance of a beginning teacher are included in scoring for certification in that jurisdiction.

The purpose of the study described in this report was to provide a basis for further documenting content validity and to provide evidence of construct validity by using an alternative strategy. This strategy involves identifying the important job functions of teachers that cut across specific grade levels taught and subject-matter specialties, identifying important professional knowledge areas required of beginning teachers and establishing linkages between important job functions and knowledge areas.

How Job Analysis Information Was Obtained

A multi-method approach was used to identify important job tasks and professional knowledge without regard to grade level or specialty area. The following information sources and procedures were used:

(1) Literature Search. ETS staff conducted an extensive search and review of published information about teachers' duties, responsibilities and requirements, including job descriptions, job analyses and other related articles and books describing what teachers do and what they need to know to perform as teachers.

(2) Advisory Committees. Three types of advisory committees participated in various aspects of this research study. An ETS Internal Advisory Committee reviewed the research design, the draft instruments, the plan for data analysis and the draft report. An External Advisory Committee of teachers, educators and other educational experts, including representatives of boards of education and teacher unions, reviewed the content of the draft instruments and the interpretation of the results. Local school district committees advised project staff on implementation of the study plan in their districts.

(3) Interviews with Teachers and Administrators. Job analysis interviews were conducted with more than 100 elementary and secondary school teachers and administrators in three school districts to identify the actual functions of teachers. The information gathered by this method was merged with data from the literature search to develop a composite list of tasks judged important for both elementary and secondary school teachers as well as a list of knowledge areas*

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*The term "knowledge area" is used in this report to describe generally the broad domains of knowledge and skill included in the second section of the inventory.

deemed important for practicing teachers. A draft inventory (questionnaire) of tasks and knowledge areas was developed for review by members of advisory committees.

Description of the Inventory

The Inventory of the Professional Functions of Teachers contained 83 job tasks of teachers grouped into five broad areas:

I. Planning the Instructional Program and Selecting Instructional Materials

II. Teaching/Implementing the Planned Instructional Program

III. Evaluating Student Learning and Instructional Effectiveness

IV. Supervising, Managing, Guiding and Counseling Students

V. Other Professional Duties

Rating scales were provided to obtain the judgments of teachers on the importance of each task, the relationship of performance of each task to overall job performance and the extent to which a beginning teacher should be able to perform each task.

The inventory also contained a list of 59 knowledge areas, including the 34 currently covered by the NTE Core Battery in the categories of Communication Skills, General and Professional Knowledge, as well as 25 additional areas in the categories of Principles and Practices of Teaching at Various Educational Levels, Principles and Practices Utilized in Various Educational Areas, Human Development and Interaction, Professional Studies and Other Areas.

Each knowledge area was rated on its importance, its relationship to successful performance and the level of cognition at which it is typically used. Demographic questions were also included to permit description of the sample and to provide a basis for analysis of results for different subgroups of teachers and administrators. (A parallel form of the inventory was developed for completion by school administrators.)

Field Trial of the Inventory

After extensive review and revision by the Advisory Committees, the draft inventory of tasks and knowledge areas was pretested to clarify the instructions and estimate completion time prior to distribution and administration of the actual inventory.

The Sample

School districts located in California, Georgia and New Jersey were selected for intensive study. The samples were not designed to be representative of teachers in general, but rather to provide an opportunity for intensive study. The districts were selected, however, to provide variety in population concentration, ethnic and racial composition and breadth of school programs. In addition to the teachers who participated in the interview phase of the development effort, all teachers and administrators in these districts were subsequently asked to complete the Inventory of the Professional Functions of Teachers.

Inventories were sent to all of the teachers and administrators (principals and assistant principals) in Jersey City, New Jersey, the Dougherty County School System in Albany, Georgia, and in the four consolidated rural districts of Contra Costa County, California. Of the 3,500 teachers and 148 administrators who received an inventory, 1,839 (53%) teachers and 89 (60%) of the administrators returned completed forms.

Analyses of Task Results

All 83 job tasks were judged by teachers and administrators to be important, related to successful classroom performance and desirable at entry into the field. There was strong agreement among teachers and administrators on each of the three rating scales. The respondents did not propose any major job functions not already covered in the inventory. The tasks that obtained the highest importance ratings were those involving the management of student behavior.

Importance ratings of the job tasks (by a matched sample of 682 teachers, 341 each from Georgia and New Jersey) were analyzed, using principal components analysis, to produce a six-factor orthogonal structure that appeared to represent important core job functions for teachers across each of the two school districts and regions. The factors were:

Factor I:	Managing and Influencing Student Behavior
Factor II:	Clerical, Administrative and Other Professional Functions
Factor III:	Assessing, Grading and Recording Student Learning Progress and Evaluating Instructional Effectiveness
Factor IV:	Planning the Lessons, Selecting the Materials and Previewing the Instructional Program
Factor V:	Implementing the Planned Instructional Program Using a Variety of Approaches
Factor VI:	Identifying Students With Individual or Similar Instructional Needs and Teaching Them Accordingly

Verification of the Applicability of the Six-Factor Description for Relevant Subgroups

A number of statistical techniques were employed to investigate the stability of the matched group six-factor solution across various school districts and grade levels. These ranged from statistical methods of comparing factor structures to direct comparisons of mean task ratings by subgroups (e.g., elementary or secondary teachers, sex, age, ethnicity, region of the country, years of teaching experience, level of grade taught, class size or current teaching assignment).

The results of these analyses led project staff to conclude that the matched group factor solution identified six dimensions of the job of teacher that are important core functions performed by groups of job incumbents in the three school districts studied and for both elementary and secondary teachers within those districts. In addition, the study concluded that the matched group factor solution is suitable for use in documenting the job-relatedness of the knowledge areas assessed in the NTE Core Battery.

Analyses of Knowledge Results

The majority of teachers, in both elementary and secondary schools, indicated that they used all 59 knowledge areas in their work and that these knowledge areas were important and related to successful job performance.

The areas receiving the highest importance ratings included classroom management, instructional techniques and communication skills.

Each of the 34 knowledge areas currently in the NTE Core Battery and 23 of the 25 additional knowledge areas were linked with one or more of the job factors both by statistical evidence from the job analysis and the expert judgment of the External Advisory Committee.

Summary of Results

1. Six broad functions of teachers were identified as representing important core job functions in each of the three school districts studied. These job functions were also judged to be important for both elementary and secondary school teachers.
2. All 59 knowledge areas were judged as being at least moderately important and related to successful job performance by the total group of teachers and administrators.

3. All 34 NTE Core Battery knowledge areas were linked to one or more job dimensions, using both statistical and judgmental procedures.

4. Twenty-three of the 25 additional knowledge areas were also linked to one or more job dimensions, using both statistical and judgmental procedures. The External Advisory Committee recommended that 22 of the 25 knowledge areas be evaluated by the appropriate NTE Committee to determine the degree to which they are or should be included within the 34 areas currently covered by the NTE Core Battery.

   Speaking was the one additional knowledge area that the committee did not consider feasible to include in the Core Battery and recommended that it be considered for inclusion in local district or state assessments. The two knowledge areas not linked to a job dimension were History of education and Philosophy of education. The External Advisory Committee recommended that these knowledge areas not be included in the NTE Core Battery.

5. The cumulative evidence obtained from this study, including the description of the teacher's job, identification of the important knowledges required for competent performance and development of linkages between the NTE Core Battery knowledge areas and the important duties of the job, provide further evidence of the job-relatedness of the content domain of the NTE Core Battery for certifying beginning teachers.

I. INTRODUCTION

Purpose of the Study

The major purpose of this study was to conduct a job analysis of the professional functions of elementary and secondary school teachers in order to identify the knowledge areas that are important for the accomplishment of their major responsibilities, regardless of subject matter or grade level taught. It was intended to provide further evidence of the degree to which the NTE Core Battery is a job related measure. This section of the report provides information on the development and use of the NTE Core Battery. Additional sections describe the issues of concern and the procedures followed in this study, the results of the job analysis survey of the teacher's job and the links established among the knowledge requirements of the job and the job dimensions.

The NTE Programs

The NTE Programs began in 1940. It is now a program of standardized measures that includes a core battery, 28 specialty area tests and a Pre-Professional Skills Battery (PPST) published by Educational Testing Service (ETS). The primary function of NTE Core Battery and Specialty Area tests is to provide objective, standardized measures of the knowledge acquired on completion of an academic training program in preparation for teaching. The NTE Programs tests enable state departments of education, school systems and others to evaluate the achievement of individuals from different colleges and universities, which may have dissimilar standards and grading practices (Educational Testing Service, 1983a, 1983b). The NTE Programs tests are designed to measure academic preparation for teaching and not the act of teaching.

The NTE Core Battery, which is the focal point of this study, consists of three separate measures designed to assess Communication Skills, General Knowledge and Professional Knowledge. Each measure is administered as an independent, two-hour examination. Communication Skills evaluates the ability to listen, to read, to write an essay and to recognize correct, standard written English. The General Knowledge test covers the areas of Mathematics, Science, Social Studies, Literature and Fine Arts. Professional Knowledge covers instructional planning, implementation, evaluation, professional behavior and understanding of the context of teaching.

The NTE tests are the product of extensive consultation with members of the teaching profession. Expert panels prepare the test specifications which, in 1982 for example, were reviewed by 3,000 educators in order to provide the basis for test items that were subsequently written by 133 subject matter experts. Pretests of new items were carried out in about 200 institutions in 49 states. (Krathwohl, 1983; Educational Testing Service, 1984).

ETS does not establish a recommended passing score; each organization or institution establishes its own cutoff score. ETS reports the scores a candidate obtains to those organizations and institutions designated by the candidate.

Over the years the NTE tests have been validated for certification, program entry and program evaluation purposes by a variety of strategies including both content and criterion-related approaches (e.g., Quirk, Witten & Weinberg, 1972a, 1972b; Educational Testing Service, 1976a, 1976b, 1978a, 1978b, 1979; North Carolina Department of Public Instruction, 1980; Cross, 1982; Pugach & Raths, 1982; Wisniewski, 1982; Womer, 1982; Educational Testing Service, 1983c; Grandy, 1983; IOX Assessment Associates, 1983; Yalow & Popham, 1983; Cordes, 1984; Owen, 1984). The current strategy used by ETS in certification, program entry and teacher training program evaluation is to document the content validity of the measures for each user by having teachers, curriculum experts and educators evaluate test items for the extent to which teacher trainees have had the opportunity to acquire the knowledge to answer each item correctly and the extent to which the knowledges and skills covered by that item are related to the job of a beginning teacher.

The use of the NTE for purposes of certification has been challenged in the courts and such use has been upheld. A three-judge federal district court ruled, in the United States v. South Carolina (1977), that the state's use of the NTE to certify teachers was constitutional and the United States Supreme Court in January 1978 summarily affirmed the district court's decision. [Further information on the development and use of the NTE can be found in A Guide to the NTE Core Battery Tests (ETS, 1984).]

The Focus of This Study

Professional standards encourage the use of a variety of validation strategies; these are described in Joint Technical Standards for Educational and Psychological Testing (1984) and supplemented, for ETS tests, in ETS Standards for Quality and Fairness (1983). The approach adopted for this study was to develop an additional line of evidence that could be used to further document the content validity of the NTE Core Battery. The initial goal of the project was to obtain a comprehensive description of the common professional functions of all teachers, regardless of their subject area specialty or grade level assignment. The knowledge critical for beginning teachers could then be identified and linked to the professional functions. The linking evidence would provide a basis for further documenting the job relatedness and content validity of the NTE Core Battery as well as evidence for construct validity.

Issues and Procedures

Specifically, this study was undertaken to investigate (a) whether a consensus exists among teachers and other educational experts as to what the important aspects of the professional functions of teachers are and (b) whether such a consensus could serve as a basis for further documenting the content validity of the certification procedures designed to assess the competency of candidates to perform the tasks or duties of the job. The study was designed to explore the following questions:

(1) Is there agreement among practicing teachers and experts in the field of education that there exists a common set of core tasks or duties performed by job incumbents?

(2) Is there agreement among practicing teachers and experts that these core tasks or duties (or a subset of them) are critical or important to the achievement of the goals or objectives of the job?

(3) Is there agreement among practicing teachers and experts on which tasks or duties one should be able to perform at entry into a teaching position?

(4) Is there agreement among these teachers and experts as to the knowledge areas that are important to performing the tasks or duties that one should be able to perform at entry into a teaching position?

In gathering the data necessary to answer the questions above, this study involved the following procedures:

(1) a search of relevant literature to identify and review task-or competency-based studies of the job functions of teachers,

(2) interviews with practicing teachers to provide first-hand information about the job functions and knowledge areas important to teaching performance,

(3) the use of advisory committees of experts (e.g., experienced teachers, administrators, educators of teachers and others) to assist in the description of teacher job functions and identification of related knowledge areas,

(4) the development of an inventory covering the identified job functions and related knowledge areas and administration of this instrument to a large number of teachers and administrators,

(5) the analysis of the inventory responses, in consultation with expert advisors, to answer the questions posed above.

These procedures and the results of the study are described in detail in the following sections of this report.

II. DEVELOPMENT OF THE INVENTORY

A number of strategies were used in the development of the job analysis inventory including literature review, interviews of teachers and the advice and counsel of committees of job and technical experts.

Literature Review

A wide variety of journal articles and texts were identified and reviewed in the course of the literature search. These ranged from publications defining the goals of education to others voicing a variety of concerns about teacher competencies. The major focus of this study, however, was on articles and information describing what teachers actually do. The following paragraphs summarize in some detail the more relevant research identified and used in the development of the job-descriptive materials used in this project.

Many publications that addressed teacher competence and the specification and appraisal of teacher traits and teaching behavior were found; i.e., Wherry, 1950; Abrahamson & Wold, 1957; Ryans, 1960; Dodl, Gant, Nelson & Jung, 1971; Kallen, 1971; Stones & Morris, 1972; Griffith, 1973; Herman, 1973; Lewis, 1973; Turner, 1973; Brown, 1974; Grant, 1974; Houston, 1974; Lortie, 1975; McDonald, 1976; Borich & Fenton, 1977; Borich & Madden, 1977; Medley, 1977; Capie, Anderson, Johnson & Ellett, 1979; Christner, Malitz, Kugle & Calkins, 1979; Ottobre, 1980; Millman, 1981; State of Florida Department of State, 1981; Teacher Education, 1981; Weaver, 1981; Benderson, 1982; Mitzel, 1982; Byrne, 1983; Clear, 1983; Darling-Hammond, Wise & Pease, 1983; Competency Testing, State Certification and Accreditation, 1984.

A number of articles and books that provided narrative descriptions of the work that teachers do, the characteristics they have and the demands imposed upon them by their job were also located; i.e., University of Nebraska

Graduate School of Education, 1919; Highet, 1950; Thorndike & Hagen, 1960; Mayer, 1961; National Education Association, 1966; Simpson, 1966; Foskett, 1967; Hoyle, 1969; Castle, 1970; Evans, 1971; Gracey, 1972; Houston & Howsam, 1972; Otty, 1972; Sterling, 1972; Terkel, 1972; Heger, 1973; Bettmann, 1974; Wiessner, 1974; Lortie, 1975; Smallwood, 1976; Lutz, 1977; Roberts, 1977; Redding, 1978; Blishen, 1980.

The way that teachers spend their time in the classroom has been observed directly and described in Great Britain (Hilsum & Cane, 1971; Hilsum & Strong, 1978); and in the United States (Christensen, 1956; Stallings, 1980; Mitman, Mergendollar, Ward & Tikunoff, 1981; Sargent, 1981; Sirotnik, 1981; Goodlad, 1983). The categories used by these researchers to code teacher activities and the results of their investigations were useful leads in the conduct of job analysis interviews and in the formulation of task statements developed for use in this project.

The search for teacher job descriptions led back to the early 1900's when job analysis as a process evolved from random notes, to composite essays of common elements, to narrative descriptions and checklists of items, to a list of distinct duties arranged in sequence and, "if possible, in order of importance" (Uhrbrock, 1922, p. 164). The techniques of job analysis were used over a half century ago for identifying the responsibilities of teachers and the foundations for teacher training (Anonymous, 1922; Snedden, 1924; Waddell, 1926). More recent studies have produced specifications of duties and responsibilities of teachers' jobs which were also useful in the development of task statements; i.e., Dorros, 1968; Ellis, 1970; National School Boards Association, 1973; United States Department of Commerce, 1980; International Labor Organization, 1981.

Although job analysis methodology has been used to describe the work that teachers do, only a limited number of studies were located in which a list of tasks or competencies was systematically developed, data were collected by questionnaire and results were analyzed and reported in sufficient detail to enable one to evaluate the quality of the product. Studies were carried out in England (Youngman, 1979, 1982, 1983), Australia (Burns, 1978, 1981) and in the United States (Mayers, 1958; Heimbach, 1974; Potter, 1980; Phelen, 1984). Wherry (1950) assembled 900 phrases to characterize teacher behavior in a study of bias in performance evaluation ratings; Tiedeman (1956) reported on 1,180 critical incidents of effective and ineffective teaching. Charters and Waples (1929), in a study to define teacher-training curricula, collected a pool of 236,655 activities. They first reduced this list to a "preliminary list" of 12,000 and finally winnowed it down to a list of 1,001 activities.

Charters and Waples used the following classifications of teachers' activities:

1. Classroom instruction
    - A. Teaching subject matter
    - B. Teaching pupils to study
2. School and class management (exclusive of extracurricular activities)
    - A. Recording and reporting facts concerning pupils
    - B. Activities involving contacts with pupils
3. Supervision of pupils' extra-classroom activities
4. Relationships with personnel of school staff
5. Relations with members of the school community
6. Professional and personal advancement
7. School plant and supplies

A study conducted by Goodfellow (1977) to describe the job duties of teachers and the attributes required to perform the job was also found to be particularly relevant. He obtained statements of tasks or "behaviors" from the published literature and from workshops with teachers in various California school districts. The tasks were rated for importance to job success. The importance ratings on 97 items were factor analyzed and an eight-factor solution was identified. The factors were characterized as:

I. Classroom teaching
II. Student-teacher interaction
III. Supervision (of aides, student teachers)
IV. Teacher-parent relationships
V. Extracurricular activities
VI. Recordkeeping
VII. Professional development/interaction
VIII. Lesson preparation

The content of the current work of California teachers reported by Goodfellow was similar to the job of teachers employed in inner-city schools in Chicago, Illinois, suburban schools in New Jersey and rural schools in Nebraska, as studied by Charters and Waples over a half century ago.

The information from these studies describing the professional functions of teachers was useful in developing a draft list of tasks and competencies of teachers for review and use in the current study. However, none of the studies described above involved the conduct of a detailed analysis of the teacher's job and the identification and linking of those knowledges to the job.

Interviews of Teachers

Interviews of teachers were conducted in three regions selected to reflect a broad range of teachers and administrators working in diverse educational settings. The three districts selected were Jersey City, New Jersey; the Dougherty County School System in Albany, Georgia, and a group of unaffiliated rural elementary and secondary schools in Contra Costa County, California that were consolidated into a third "district" for this study. The characteristics of these districts are described in detail in Section III of this report.

The interviews were designed specifically for job analysis purposes. They were focused on the independent collection of information on the tasks the teachers performed as well as the knowledge areas necessary to perform the job. A job analysis interview questionnaire was developed to ensure uniformity of coverage over interviews and sites, and to provide a record of the responses of the teachers for subsequent analysis. A copy of the questionnaire is contained in Appendix A*.

Teams of two to four experienced ETS interviewers traveled to each school district to conduct the interviews at elementary and secondary schools selected by administrators as representing the variety of schools in their district. The interviewers received formal training and participated in pilot interviews prior to going into the field. ETS project staff described the desired characteristics of the sample of schools and teachers to be interviewed to district advisory committees. ETS staff indicated that they would like the sample to include representation by race, sex, length of teaching experience, age, grade level and subject matter taught. The actual selection of teachers was made by an administrator in each school. The interviews were conducted largely during each teacher's free period and participation was arranged and encouraged by school and district supervisory personnel. The teachers were highly cooperative and were both willing and able to describe their functions and the knowledge areas they thought necessary to perform them.

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*Starred appendices are not included in this report. The full appendices are published in a separate document titled: Job Analysis of the Professional Functions of Teachers: Appendices. Princeton, N.J.: Educational Testing Service, 1985.

A total of 113 teachers were interviewed in the three school districts. The number and school level of the teachers interviewed is presented below in Table 1.

Table 1

Number and Level of Teachers Interviewed

	Jersey City, NJ	Albany, GA	Contra Costa Co., CA	Total
School Level				
Elementary	17	35	15	67
Secondary	9	22	15	46
TOTAL	26	57	30	113

The results of the interviews were summarized into statements of tasks and specific knowledge areas that were supplemented by information obtained from the literature review. These statements were reviewed, revised and edited by project staff to provide clarity, eliminate duplication and ensure comprehensive coverage of the professional work of teachers. The task statements were then clustered into groups of similar functions and the knowledge areas were grouped logically to permit ease of review. The tasks and knowledge areas, along with demographic questions and rating scales, were then incorporated into a draft questionnaire that could be self-administered to a large number of job incumbents. This draft was submitted for review by the Internal and External Advisory Committees.

Advisory Committees

In order to bring varying types of expertise to bear on the conduct of the study, three types of advisory committees were established to assist the project staff: an External Advisory Committee, an Internal Advisory Committee and a School District Advisory Committee in each jurisdiction. The names of the members of these committees are included in the Acknowledgment Section of this report.

The External Advisory Committee was composed of teachers, administrators and representatives of Boards of Education, teachers' unions and teacher training institutions. This committee reviewed the project design, reviewed and critiqued the survey instruments during the course of their development and suggested ways of overcoming operational problems. It also assisted in the analysis of the results and, in particular, evaluated and affirmed the linkages between the tasks and related knowledge areas important to the job.

The Internal Advisory Committee was made up of ETS staff with expertise in the areas of research design, test validity, instrument development, data analysis and reporting. The committee included members with experience in teaching, educational administration and in the conduct of large-scale studies in schools. The responsibility of the membership was to review the research design, the instruments developed, the plans for data analysis and the draft report of the results.

A School District Advisory Committee comprised of local teachers and administrators was established in each cooperating school district. Their major role was to advise how best to implement the research in their districts. They assisted in setting up the interview schedule and in planning the distribution and return of the job analysis questionnaires. The district committees were invaluable in promoting the cooperation of teachers and administrators within the districts.

The Inventory

The result of the literature review and interviews was a comprehensive list of the important tasks and responsibilities of teachers as well as the knowledge areas that were important for their work. This information was formatted as a draft inventory designed for administration to a large number of job incumbents.

Draft Inventory

The contents of the draft inventory were presented in three sections. The first section contained a list of 89 tasks or responsibilities divided into six job dimensions or groups of activities:

I. Planning the Instructional Program and Assembling Instructional Materials (16 tasks)

II. Teaching-Implementing the Planned Instructional Program (28 tasks)

III. Evaluating Students and Instruction (13 tasks)

IV. Supervising, Controlling, Assisting and Counseling Students (20 tasks)

V. Administering Resources (8 tasks)

VI. Other Professional Duties (4 Tasks)

The second section contained a list of 57 knowledge areas divided into 10 broad groups:

1. Communications skills (4 areas)
2. Literature and fine arts (3 areas)
3. Mathematics (3 areas)
4. Science (9 areas)
5. Social studies (6 areas)
6. Professional education (9 areas)
7. Principles and practices of teaching at various levels (4 areas)
8. Principles and practices utilized in various educational areas (10 areas)
9. Human development and interaction (4 areas)
10. Other areas (5 areas)

Groups 1-6 covered the specific subject areas currently assessed in the NTE Core Battery. Groups 7-10 covered other knowledge areas suggested by the teachers, the Advisory Committee members or the findings of the literature review.

The third section contained 10 demographic questions (e.g., race, sex, education, years teaching, etc.) that were selected to provide information that could be used to describe the respondents as well as to provide critical variables for data analysis. A copy of the draft inventory is contained in Appendix B*.

The draft inventory was reviewed by both the Internal and External Advisory Committees. The External Advisory Committee rated each task and knowledge area in terms of its importance to the goals of the teacher's job.

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*Starred appendices are published separately.

The inventory was revised on the basis of their ratings and recommendations as a final step to ensure that the inventory contained a comprehensive description of the important tasks and knowledge areas for teachers. Demographic questions were also reviewed and revised to ensure that they would provide both the categories required for the planned analyses and useful information to describe important characteristics of the sample.

Revised Inventory: Based on the recommendations of the Internal and External Advisory Committees, a revised inventory was developed for pilot testing. The revised inventory retained the three-section organization, but some revisions were made within each section.

- Part I. Inventory of Tasks

  This section was revised to include five dimensions or broad functions of the teacher's job:

  I. Planning the Instruction Program and Selecting the Instructional Materials (14 tasks)

  II. Teaching-Implementing the Planned Instructional Program (26 tasks)

  III. Evaluating Student Learning and Instructional Effectiveness (15 tasks)

  IV. Supervising, Managing, Guiding and Counseling Students (18 tasks)

  V. Other Professional Duties (10 tasks)

  The changes involved combining two of the draft dimensions (Administering Resources and Other Professional Duties) into one dimension (Other Professional Duties), reducing the number of tasks from 89 to 83 and revising the dimension titles and a number of task statements to reflect more accurately the professional functions of teachers. A few items were deleted because they described tasks that either were not professional functions of teachers or were trivial or rare events, e.g., "Evaluate published tests for use in school or class"; "Receive money and dispense food or other material resources to students"; "Participate in, supervise or otherwise support school activities such as clubs, athletic events and other extracurricular programs."

- Part II. Knowledge Areas

The External Advisory Committee recommended that the 34 knowledge areas covered by specifications for the NTE Core Battery be included in the inventory with some minor editorial revisions to their description. Speaking was added to the group of Communications Skills listed.

"Principles and Practices of Teaching Various Educational Levels" remained essentially the same as in the draft, but "Principles and Practices Utilized in Various Educational Areas" was reduced to five items covering bilingual/multicultural education, global education, reading/language arts education, special education and vocational and career education.

In the area of "Human Development and Interaction", two areas were added to those of the draft: interpersonal relations and group dynamics, and physical development (including exceptionality). The "Other Areas" covered were reduced in number to three: educational application of computers, tests and measurement, and health and first aid.

The External Advisory Committee provided an additional group of knowledge areas, "Professional Studies" which included, among other areas, methodology, curriculum and instructional techniques.

The total number of knowledge areas listed in the revised inventory was 59, as compared with 57 in the draft version. The 59 areas constitute a domain consisting of the 34 knowledge areas that are currently covered in specifications for the NTE Core Battery and 25 additional areas identified through the literature review, teacher interviews and External Advisory Committee member suggestions that further define the domain of knowledge that might be important for all teachers.

- Part III. Biodata Questions

The biodata questions were revised to include items on the current teaching status of respondents (e.g., substitute, regular) and current teaching assignment. In addition, open-ended questions were included to provide opportunity for respondents to add important tasks and knowledge areas they felt had not been covered in the earlier sections of the inventory.

Rating Scales: In Parts I and II of the inventory, respondents used three rating scales to evaluate the tasks and knowledge areas. These scales were developed and used in previous studies (Rosenfeld and Thornton, 1974, 1976a, 1976b, 1976c, 1978, 1979) to obtain judgments about the tasks and knowledge areas. They were designed to provide information to be used in the development of test specifications and in the documentation of the validity of the related assessment measures. A "Time Spent" rating scale was included in the original draft of the inventory. The External Advisory Committee concurred with project staff's decision to eliminate this scale in order to reduce the total number of ratings required of teachers and thereby increase the likelihood of a high rate of return.

- Ratings of Tasks

The task-rating scales for Part I are designed to obtain information about the tasks that teachers perform and to identify the areas most appropriate for assessment. The first rating scale asks the respondent to assess the importance of the task, as follows.

1. Importance

Regardless of the amount of time you spend, how important is it to YOUR professional functioning as a teacher that this task be carried out properly?

Because it is usually not economically or logistically feasible to assess all of the work-related knowledge and activities required of job incumbents in the course of their performance of the job, the typical test or assessment procedure is based on a sample of the duties, tasks, knowledge or skills required in the job. This rating scale provides information on the relative importance of the tasks performed and forms a basis for identifying the sample of tasks that will be the focus of the test or assessment measure. The ratings can also be used to demonstrate that the sample consists of "core tasks" performed by a substantial number of teachers, that these tasks are indeed important to the performance of the job and, therefore, critical for certification purposes.

The second scale asks the respondent to identify the extent to which the ability to perform each task is necessary for a beginning teacher.

2. Extent at Entry

To what extent is the ability to perform this task necessary when a new teacher starts to work in the profession?

The function of this information is to attempt to eliminate from further consideration in designing certification measures those tasks which a teacher would be expected to learn on the job, and identify those tasks which are desirable for the beginning teacher to be able to perform.

The third type of task information to be collected concerns the relationship between performance of the task and overall job success. Respondents are asked the following question.

3. Relationship

Do the most effective teachers perform this task more effectively than less effective teachers?

This information can assist in the sampling of tasks to be included in the assessment measures and can be useful in the specification and development of criterion measures of job performance, should subsequent studies be desirable.

- Ratings of Knowledge Areas

As with the tasks, the rating scales used in conjunction with the knowledge areas were each designed to provide unique information necessary for test specification and validation. The rating scales and their intended use are described below.

1. Importance

   Regardless of the amount of time you spend using this knowledge or skill, how important is it to your job?

This scale was included to identify the important knowledge areas necessary for effective job performance and to yield information that could be used to link the knowledge areas to the job functions for which they are important.

2. Relationship

   Do the most effective teachers have more of this knowledge or skill than less effective teachers?

This scale was used to identify the knowledge areas most related to successful performance. This second scale provides additional information to use in deciding which areas to assess if it is not practical to assess all of the important areas.

3. Level of Typical Use

At which of the following levels is this knowledge or skill area typically used by you in the course of your work?

This scale, based upon the Taxonomy of Educational Objectives: The Cognitive Domain (Bloom, 1956), was included to obtain information about how each knowledge area is used on the job. This information is useful in the development of test specifications and also in the evaluation of test items and documentation that the items replicate job activities and are no more difficult than the job requires.

Pilot Test of the Inventory

A pilot test of the inventory was conducted with 12 teachers from the Jersey City, New Jersey, School District. The purpose of this pilot test was to determine whether the instructions for completing the inventory were clear, whether the task statements and knowledge areas were understandable to teachers who had not actively participated in their development and whether the inventory could be completed by teachers in a reasonable period of time. A few minor wording changes were made on the basis of the pilot test and it was determined that the inventory could be completed by respondents in approximately one hour. A copy of the final inventory is contained in Appendix C.

Alternate Form for School Administrators

A parallel form of the inventory was developed for completion by school administrators (principals and assistant principals). The results of their participation would provide an opportunity to compare the perceptions of teachers with those of administrators and determine the extent to which the two groups rated the tasks and knowledge areas in the same way.

Instructions and rating scales were revised to reflect the fact that administrators would be rating what teachers under their supervision do and the knowledge that is desirable for teachers in performing their job. A copy of the inventory for school administrators is contained in Appendix D*.

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* Starred appendices are published separately.

III. THE STUDY SITES

There were a number of practical considerations that were taken into account in deciding on the sampling strategy to be used in this study. Primary among these was the cooperation of the school districts and school personnel involved. In order to collect the required information, schools would have to permit teachers to be interviewed and be willing to arrange time for committees of teachers and administrators to meet with project staff. They would also have to be willing to allow the survey instruments to be administered throughout the system.

Because of the nature of the commitment involved, project staff, with the approval of the Internal Advisory Committee, decided that the most workable approach involved obtaining the cooperation of separate school districts in three regions. These districts were selected to represent some of the more pertinent variables that might be encountered in school districts throughout the United States. Among the variables that were considered in identifying potential districts were location (urban/suburban/rural), socio-economic status and racial composition of students and staff and variety of educational programs provided in the elementary and secondary schools. The goal was to have access to a broad spectrum of teachers and administrators working in a variety of educational settings who would cooperate in the interview, instrument development and data collection stages of the project. The sampling plan involved the administration of an inventory to all teachers, principals and assistant principals in all schools in each of the participating districts.

It was recognized that it would not be appropriate to use the results from three school districts as a basis for generalizing to all school districts across the nation. It was felt, however, that the results obtained from three diverse school districts would provide useful data on the structure of the teacher's job and that these findings would be useful in planning and designing a method for evaluating the results and transporting them to other users.

The three sites selected were the Jersey City, New Jersey, Public School System; the Dougherty County School System in Albany, Georgia, and a group of unaffiliated elementary and secondary schools in the western portion of Contra Costa County, California, located in Brentwood, Manteca, Oakdale and Riverbank. This third group was consolidated in the study to represent a suburban/rural district since a single rural sample would have had too few teachers to provide an adequate basis for analysis. All of the California locations are characterized by the U.S. Census Bureau as Standard Metropolitan Statistical Areas and as such are perhaps more suburban than rural.

Some of the characteristics of each of these communities, obtained from the published 1980 census data, are given in Table 2. Jersey City is a relatively poor, inner-city system that is in the midst of rebuilding its school buildings. It is located just west of New York City and has a relatively large Hispanic immigrant population. The typical family resides in a rented apartment and only half the households own one or more motor vehicles.

The Dougherty County schools are located in the town of Albany, Georgia, and serve the residents of the town and nearby areas. Albany is a marketing and distribution center for southern Georgia and, over the years, has experienced a steadily expanding economy and a relatively low rate of unemployment. The schools have been racially integrated for some years and

Table 2

Characteristics of the Sites Surveyed

(Source: U.S. Census Bureau, 1980)

		Jersey City, NJ	Albany, GA	Brentwood CA	Manteca CA	Oakdale, CA	Riverbank, CA
1.	POPULATION	223,532	112,402	4,434	24,925	8,474	5,695
2.	% White (non-Hispanic)	50.4	57.8	57.9	82.9	85.0	61.3
	% Black	27.7	40.4	0	0.4	0	0
	% Hispanic	18.6	1.1	39.5	13.5	12.9	35.3
	% Others	4.5	0.5	2.6	3.2	2.1	3.4
3.	% persons aged 5-17 years who speak English poorly or not at all	11.4	9.1	25.0	10.1	9.8	24.1
4.	% persons aged 18 + who speak English poorly or not at all	24.5	6.6	34.9	18.5	24.6	40.4
5.	% population aged 3 + enrolled in school grades K-12	21.6	24.8	24.0	23.4	21.6	24.3
6.	Household median income	$12,787	$15,538	$14,700	$18,171	$15,076	$13,285
7.	% population living below poverty line	21.2	20.4	11.1	9.4	10.1	15.1
8.	% housing units owner-occupied	28.0	55.5	63.0	60.8	59.9	52.7
9.	Median value of owner-occupied houses	$30,600	$40,400	$63,700	$59,200	$54,000	$44,400
10.	% housing units built before 1939	61.0	7.2	10.3	5.4	16.1	15.6
11.	% households with one or more motor vehicles available	54.7	87.2	89.6	94.4	89.1	90.4

are administered and staffed by Blacks and Whites at all levels. Most of the homes are one-story, single-family dwellings and most families own at least one motor vehicle.

The California schools are in small to medium-sized towns located between 50 to 100 miles east of San Francisco. The area, largely agricultural, varies from suburban to rural but nearly all the pupils travel to school by bus.

The number of schools and teachers in each of the locations surveyed is given in Table 3. The figures represent the target populations that were selected for study. About two-thirds of the teachers and half of the schools were in Jersey City. There were 32 schools and over 1,000 teachers in the Georgia target sample and the four consolidated school systems in California included 13 schools and 301 teachers.

Table 3

Teachers and Schools Surveyed

	Jersey City,NJ	Albany GA	Brentwood City, CA	Manteca CA	Oakdale CA	Riverbank CA	California Total	GRAND TOTAL
Teachers	2,066	1,089	55	111	80	55	301	3,456
Elementary Schools	31	20	3	--	4	4	11	62
Secondary Schools	5	12	--	2	--	--	2	19
Total Schools	36	32	3	2	4	4	13	81

IV. DISTRIBUTION AND RETURN OF INVENTORIES

Distribution of Inventories

After consultation with the School District Advisory Committees, it was decided to send the inventories directly to the principals of the participating schools, with arrangements for prepaid return of the completed questionnaires. Faculty meetings were to be held in each school at which the principal would describe the purpose of the study, request the cooperation of the teachers and address any questions raised.

It was also planned that the Superintendent of Schools of each participating district would inform the principals and teachers beforehand of the importance of the study and of the benefits to be obtained by their cooperation.

The final version of the inventories, cover letters and related materials were forwarded to the schools for their completion in May 1984. The package sent to each cooperating school contained the following items:

1. Directions to administrators for distributing and returning the Inventory of the Professional Functions of Teachers
2. Letter to participating principals and assistant principals giving instructions on how to complete and return their form of the Inventory of the Professional Functions of Teachers, enclosed in an envelope with a copy of the inventory
3. Letter to participating teachers giving instructions on how to complete their copy of the Inventory of the Professional Functions of Teachers, and a return envelope with a copy of the inventory---each completed inventory was to be sealed in its envelope prior to return to the collection place in each school.

4. A preaddressed, prepaid shipping label for convenient return of the completed materials.

(Copies of these materials are contained in Appendix E.*)

Follow-up phone calls were made to a representative of each District Advisory Committee to verify receipt of the materials and to identify and correct any problems that might impede the data collection. Further contact was made toward the end of June to encourage the completion and return of the inventories. Approximately 3,600 inventories were distributed to the 81 schools in the sample.

Return of Inventories and Description of Analysis Sample

Processing of the inventories began in July 1984. Eighteen hundred and thirty nine (1,839) completed teacher inventories and 89 completed administrator inventories were received. A summary of the inventories distributed and returned is given in Table 4. No returns were received from schools in Riverbank, California, because of the illness of a key school administrator.

The response rate for teachers by school regions ranged from 52% in Georgia to 63% in California. The response rate for school administrators ranged from 62% in New Jersey to 76% in California.

Table 5 provides a description of the sample of teachers used in the analyses described in this report. Only regular teachers were included for analysis purposes. The responses received from 24 part-time and full-time substitute teachers were omitted from the analyses. The sample is predominantly female (78%) and predominantly White (69%). Blacks constituted

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* Starred appendices are published separately.

Table 4

Summary of Inventories Distributed and Returned

	INVENTORIES DISTRIBUTED			RETURNED	
	Elementary	Secondary	TOTAL	TOTAL	
California				N	(%)**
Schools*	11	2	13	--	
Teachers	190	111	301	191	(63%)
Administrators	11	6	17	13	(76%)
Georgia					
Schools	20	12	32	--	
Teachers	745	344	1,089	563	(52%)
Administrators	35	22	57	34	(60%)
New Jersey					
Schools	31	5	36	--	
Teachers	1,498	568	2,066	1,085	(53%)
Administrators	60	14	74	42	(57%)
Total					
Schools	62	19	81	--	
Teachers	2,433	1,023	3,456	1,839	(53%)
Administrators	106	42	148	89	(60%)

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*Riverbank, California School District not included because of the illness of a key administrator.

**Percent based on the total inventories distributed.

TABLE 5.

DEMOGRAPHIC CHARACTERISTICS OF TEACHERS

ITEMS AND ALTERNATIVES	CALIF		GEORGIA		JERS CITY		TOTAL	
	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
DISTRICT								
BRENTWOOD	40	20.94	0	0.0	0	0.0	40	2.18
MANTECA	90	47.12	0	0.0	0	0.0	90	4.89
OAKDALE	61	31.94	0	0.0	0	0.0	61	3.32
RIVERBANK	0	0.0	0	0.0	0	0.0	0	0.0
DOUGHERTY	0	0.0	563	100.00	0	0.0	563	30.61
JERSEY CITY	0	0.0	0	0.0	1085	100.00	1085	59.00
TOTAL RESPONDING	191	100.00	563	100.00	1085	100.00	1839	100.00
AGE								
UNDER 25	3	1.58	20	3.60	25	2.34	48	2.65
25 - 34	48	25.26	158	28.42	376	35.24	582	32.10
35 - 44	72	37.89	196	35.25	429	40.21	697	38.44
45 - 54	48	25.26	132	23.74	156	14.62	336	18.53
55 - 64	19	10.00	49	8.81	68	6.37	136	7.50
65 OR OVER	0	0.0	1	0.18	13	1.22	14	0.77
TOTAL RESPONDING	190	99.48	556	98.76	1067	98.34	1813	98.59
SEX								
FEMALE	93	48.95	487	86.96	846	79.29	1426	78.48
MALE	97	51.05	73	13.04	221	20.71	391	21.52
TOTAL RESPONDING	190	99.48	560	99.47	1067	98.34	1817	98.80
ETHNICITY								
INDIAN	3	1.60	0	0.0	4	0.38	7	0.39
ASIAN AMERICAN	2	1.06	0	0.0	12	1.15	14	0.78
BLACK	0	0.0	219	39.39	193	18.52	412	23.07
HISPANIC	6	3.19	2	0.36	59	5.66	67	3.75
WHITE	171	90.96	324	58.27	745	71.50	1240	69.43
OTHER	6	3.19	11	1.98	29	2.78	46	2.58
TOTAL RESPONDING	188	98.43	556	98.76	1042	96.04	1786	97.12
HIGHEST DEGREE								
LESS THAN BACHELORS	0	0.0	4	0.72	4	0.37	8	0.44
BACHELORS	142	74.35	271	48.48	651	60.61	1064	58.33
MASTERS	47	24.61	283	50.63	410	38.18	740	40.57
DOCTORATE	2	1.05	1	0.18	9	0.84	12	0.66
TOTAL RESPONDING	191	100.00	559	99.29	1074	98.99	1824	99.18
YEARS TEACHING								
LESS THAN 1	2	1.05	11	1.99	12	1.12	25	1.38
1 - 2	6	3.14	25	4.52	36	3.37	67	3.70
3 - 5	22	11.52	65	11.75	106	9.93	193	10.66
6 - 10	39	20.42	105	18.99	276	25.87	420	23.19
11 - 15	44	23.04	127	22.97	327	30.65	498	27.50
16 - 20	41	21.47	80	14.47	198	18.56	319	17.61
21 OR MORE	37	19.37	140	25.32	112	10.50	289	15.96
TOTAL RESPONDING	191	100.00	553	98.22	1067	98.34	1811	98.48
NUMBER OF STUDENTS IN CLASS								
1 - 4	0	0.0	2	0.38	4	0.40	6	0.35
5 - 9	6	3.16	18	3.40	86	8.65	110	6.42
10 - 14	3	1.58	24	4.53	75	7.55	102	5.95
15 - 19	5	2.63	28	5.28	113	11.37	146	8.52
20 - 24	24	12.63	115	21.70	282	28.37	421	24.56
25 - 29	79	41.58	224	42.26	327	32.90	630	36.76
30 - 34	54	28.42	99	18.68	78	7.85	231	13.48
35 - 39	8	4.21	13	2.45	9	0.91	30	1.75
40 - 44	7	3.68	2	0.38	3	0.30	12	0.70
45 - 49	3	1.58	3	0.57	4	0.40	10	0.58
50 OR MORE	1	0.53	2	0.38	13	1.31	16	0.93
TOTAL RESPONDING	190	99.48	530	94.14	994	91.61	1714	93.20

TABLE 5.
(cont'd)

DEMOGRAPHIC CHARACTERISTICS OF TEACHERS

NUMBER OF OBSERVATIONS	CALIF 191		GEORGIA 563		JERS CTY 1085		TOTAL 1839	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
CURRENT TEACHING ASSIGNMENT								
1-PRESCHOOL OR KINDERGARTEN	11	100.00	24	100.00	65	100.00	100	100.00
TOTAL RESPONDING	11	5.76	24	4.26	65	5.99	100	5.44
CURRENT TEACHING ASSIGNMENT*								
2-ELEMENTARY	60	100.00	277	100.00	555	100.00	892	100.00
TOTAL RESPONDING	60	31.41	277	49.20	555	51.15	892	48.50
CURRENT TEACHING ASSIGNMENT								
3-SPECIAL ED.	12	100.00	40	100.00	80	100.00	132	100.00
TOTAL RESPONDING	12	6.28	40	7.10	80	7.37	132	7.18
CURRENT TEACHING ASSIGNMENT								
4-ARTS AND CULTURE	6	100.00	12	100.00	19	100.00	37	100.00
TOTAL RESPONDING	6	3.14	12	2.13	19	1.75	37	2.01
CURRENT TEACHING ASSIGNMENT								
5-LANGUAGE ARTS & COMMUNICATION	27	100.00	47	100.00	121	100.00	195	100.00
TOTAL RESPONDING	27	14.14	47	8.35	121	11.15	195	10.60
CURRENT TEACHING ASSIGNMENT								
6-QUANTITATIVE METHODS	17	100.00	33	100.00	49	100.00	99	100.00
TOTAL RESPONDING	17	8.90	33	5.86	49	4.52	99	5.38
CURRENT TEACHING ASSIGNMENT								
7-PHYSICAL AND BIOLOGICAL SCIEN	13	100.00	22	100.00	19	100.00	54	100.00
TOTAL RESPONDING	13	6.81	22	3.91	19	1.75	54	2.94
CURRENT TEACHING ASSIGNMENT								
8-SOCIAL SCIENCES	10	100.00	20	100.00	13	100.00	43	100.00
TOTAL RESPONDING	10	5.24	20	3.55	13	1.20	43	2.34
CURRENT TEACHING ASSIGNMENT								
9-HISTORY & GOVERNMENT	7	100.00	15	100.00	11	100.00	33	100.00
TOTAL RESPONDING	7	3.66	15	2.66	11	1.01	33	1.79
CURRENT TEACHING ASSIGNMENT								
10-LIFE AND LIVING	6	100.00	11	100.00	36	100.00	53	100.00
TOTAL RESPONDING	6	3.14	11	1.95	36	3.32	53	2.88
CURRENT TEACHING ASSIGNMENT								
11-VOCATIONAL/TECHNICAL	13	100.00	16	100.00	30	100.00	59	100.00
TOTAL RESPONDING	13	6.81	16	2.84	30	2.76	59	3.21
CURRENT TEACHING ASSIGNMENT								
12-HEALTH AND P.E.	20	100.00	27	100.00	32	100.00	79	100.00
TOTAL RESPONDING	20	10.47	27	4.80	32	2.95	79	4.30
CURRENT TEACHING ASSIGNMENT								
13-OTHER	6	100.00	15	100.00	49	100.00	70	100.00
TOTAL RESPONDING	6	3.14	15	2.66	49	4.52	70	3.81

*Does not include special subject teachers in elementary schools

23% of the sample and others 6%. The median age of teacher respondents is 38 years and the median length of time they have been teaching is 14 years. Fifty-eight percent (58%) hold Baccalaureate degrees and 41% hold Master's degrees. The median class size taught by these teachers was 25 students. The teachers taught a wide variety of subject areas with the largest number (49%) currently assigned to elementary grades or subjects.

Table 6 presents similar data for the school administrators responding. The administrators who responded included 50 principals (63%) and 39 assistant principals (41%) and 6 (6%) who declined to indicate their rank and were removed from further analysis. The median length of service in their current position was 10 years. Their median age was 49 years; 69% were male; 78% were White but Blacks and Hispanics were also represented (22%). All of these administrators held either a Masters (84%) or a Doctoral (16%) degree.

The last part of the inventory asked respondents to list any additional important tasks or knowledge areas required of teachers that they felt had not been included in the inventory. No major new tasks or knowledge areas were added by respondents and project staff therefore concluded that the inventory comprehensively covers the professional functions of teachers.

TABLE 6.

DEMOGRAPHIC CHARACTERISTICS OF ADMINISTRATORS

	CA		GA		NJ		TOTAL	
NUMBER OF OBSERVATIONS	13		34		42		89	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
143 IN WHICH DISTRICT IS YOUR SCHOOL LOCATED?								
01 BRENTWOOD UNION, CA	3	23.08	0	0.0	0	0.0	3	3.37
02 MANTECA UNIFIED, CA	6	46.15	0	0.0	0	0.0	6	6.74
03 OAKDALE UNION, CA	4	30.77	0	0.0	0	0.0	4	4.49
04 RIVERBANK ELEMENTARY, CA	0	0.0	0	0.0	0	0.0	0	0.0
05 DOUGHERTY COUNTY, GA	0	0.0	34	100.00	0	0.0	34	38.20
06 JERSEY CITY PUBLIC SCHOOLS, NJ	0	0.0	0	0.0	42	100.00	42	47.19
TOTAL	13	100.00	34	100.00	42	100.00	89	100.00
144 WHAT IS YOUR AGE?								
01 UNDER 25	0	0.0	0	0.0	0	0.0	0	0.0
02 25-34	2	15.38	1	2.94	0	0.0	3	3.41
03 35-44	3	23.08	12	35.29	10	24.39	25	28.41
04 45-54	7	53.85	9	26.47	19	46.34	35	39.77
05 55-64	1	7.69	12	35.29	12	29.27	25	28.41
06 65 OR OVER	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	13	100.00	34	100.00	41	97.62	88	98.88
145 WHAT IS YOUR SEX?								
01 FEMALE	2	15.38	11	32.35	15	35.71	28	31.46
02 MALE	11	84.62	23	67.65	27	64.29	61	68.54
TOTAL	13	100.00	34	100.00	42	100.00	89	100.00
146 WHICH OF THE FOLLOWING BEST DESCRIBES YOUR RACIAL/ETHNIC BACKGROUND?								
01 AMERICAN INDIAN/ALASKAN NATIVE	0	0.0	0	0.0	0	0.0	0	0.0
02 ASIAN/PACIFIC ISLANDER	0	0.0	0	0.0	0	0.0	0	0.0
03 BLACK (NON-HISPANIC)	0	0.0	11	32.35	6	15.00	17	19.54
04 HISPANIC	2	15.38	0	0.0	0	0.0	2	2.30
05 WHITE	11	84.62	23	67.65	34	85.00	68	78.16
06 OTHER	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	13	100.00	34	100.00	40	95.24	87	97.75
147 WHAT IS THE HIGHEST PROFESSIONAL DEGREE YOU HOLD?								
01 LESS THAN BACHELOR'S DEGREE	0	0.0	0	0.0	0	0.0	0	0.0
02 BACHELOR'S DEGREE	0	0.0	0	0.0	0	0.0	0	0.0
03 MASTER'S DEGREE	10	100.00	22	68.75	36	92.31	68	83.95
04 DOCTORATE	0	0.0	10	31.25	3	7.69	13	16.05
TOTAL	10	76.92	32	94.12	39	92.86	81	91.01
148 Years in current position								
01 LESS THAN A YEAR	0	0.0	1	2.94	0	0.0	1	1.12
02 1 - 2 YRS	2	15.38	3	8.82	1	2.38	6	6.74
03 3 - 5 YRS	3	23.08	6	17.65	5	11.90	14	15.73
04 6 - 10 YRS	5	38.46	7	20.59	13	30.95	25	28.09
05 11 - 15 YRS	2	15.38	11	32.35	15	35.71	28	31.46
06 16 - 20 YRS	0	0.0	1	2.94	5	11.90	6	6.74
07 21 OR MORE YEARS	1	7.69	5	14.71	3	7.14	9	10.11
TOTAL	13	100.00	34	100.00	42	100.00	89	100.00

V. DESCRIBING THE PROFESSIONAL FUNCTIONS OF TEACHERS

Each of the 83 tasks included in the job analysis inventory was developed with the advice and counsel of more than 125 teachers and administrators. The tasks were intended to describe the important aspects of the professional functions of teachers that are performed in a variety of settings and grade levels and for which competence is desirable at the time of initial certification. In the section that follows, the salient findings bearing on the description of the professional functions of teachers are summarized.

Reliability of Ratings

Intraclass correlation (Guilford, 1956) was used to estimate and describe the consistency with which teachers and administrators rated the tasks in the inventory on the scales of importance, extent necessary at entry and relationship. The reliability (see Table 7) of a single teacher on these scales ranged from .28 to .36 and for a single administrator from .27 to .30. When these reliabilities were "stepped up" for the total samples of teachers and administrators, the reliabilities (see Table 7) were .99 for each of the three rating scales used by teachers and .97 for the administrators. These results indicate that if the job function section of this inventory were to be administered to a similarly selected sample of teachers and administrators of the same size and from the same population, the procedures described would yield nearly identical average ratings. Since typical practice usually involves substantially fewer raters, project staff estimate that, using reliabilities of a single rater in the range from .27 to .36, a panel of 24 raters would be needed to have reliabilities of .90 or higher.

Table 7

Reliability of Ratings of Tasks by Teachers and Administrators

	Teachers	Administrators
Reliability of a Single Rater by Rating Scale		
Importance	.28	.30
Extent at Entry	.32	.29
Relationship	.36	.27
Reliability of the Total Ratings by Rating Scale		
Importance	.99	.97
Extent at Entry	.99	.97
Relationship	.99	.97

Intercorrelation of Rating Scales

In order to evaluate the degree to which teachers and administrators rated tasks on the three rating scales in a similar manner, intercorrelations were computed among the ratings of the tasks separately for each group. Table 8 provides the intercorrelations of the average task ratings of teachers and administrators by rating scale. The average intercorrelations of teacher task ratings across 83 tasks ranged from .41 to .60 and for administrators ranged from .40 to .64. For each group the highest average correlation is between importance of the task and the degree to which the ability to perform the task is required at entry. These results indicate that while the ratings on the scales are related to each other, each provides a degree of unique information for use in evaluating tasks.

Table 8

The Average Intercorrelations of Teacher and Administrator Task Ratings Over 83 Tasks for the Three Rating Scales

Teachers

(N = 1,839)

Job Tasks	Importance	Extent at Entry	Relationship
Importance	1.00	.60	.41
Extent at Entry		1.00	.41
Relationship			1.00

Administrators

(N = 89)

Job Tasks	Importance	Extent at Entry	Relationship
Importance	1.00	.64	.42
Extent at Entry		1.00	.40
Relationship			1.00

Mean Ratings of Tasks

Mean ratings of tasks were computed separately by district for teachers and administrators for each of the three rating scales; importance, extent at entry, and relationship. The percent of teachers rating each task above zero on the relationship scale was also calculated for teachers in each region in which data were gathered. These percentages are sufficiently high to warrant the conclusion that each of the 83 tasks was a responsibility of teachers in all three regions and in both the elementary and secondary schools surveyed. These results are contained in Appendix F. A brief description of the findings is provided below.

Mean Importance Ratings: This rating involved an evaluation of how important it is to the professional functioning of teachers that a given task be carried out properly. All 83 tasks were judged to be at least moderately important (a rating of 2.0) by both teachers and administrators in each of the regions surveyed. The tasks which obtained the highest importance ratings were those involving management of student behavior; e.g., Establish classroom rules (#56), Communicate school rules (#57), Maintain order in class (#58), Establish standards of social behavior (#59) and Deal with (manage) student misbehavior (#70).

At the lower end of the importance scale some tasks were rated as moderately important. These included such tasks as: Prepare apparatus and check equipment (#10), Take inventory, store, distribute and collect books, materials and equipment used in class (#74), Monitor classroom temperature, lighting and ventilation (#77) and Serve on committees (#83).

Mean Ratings of Extent at Entry: The mean ratings on this scale describe judgments of the degree to which a teacher needs to be able to perform these tasks when first starting work in the profession.

The overall pattern of results, for both teachers and administrators, shows that all of the tasks listed in the inventory were rated as 2.0 or higher by the total group of teachers. These results indicate that it is desirable for the beginning teacher to be able to perform all of them, although subsequent classroom experience should lead to improved job performance. Only the California teachers rated two tasks below the 2.0 threshold: Orient and train beginning teachers (#80) and Serve on committees (#83).

Mean Ratings of Relationship: The third scale that teachers and administrators used to evaluate the teacher's job was one in which they judged the extent to which the better teachers performed each task more effectively than the poorer teachers. All tasks received a mean rating higher than 1.5 by the total group of teachers and administrators, indicating that the more effective teachers perform the tasks better than the less effective teachers.

Summary of Task Ratings: The ratings of the teachers and administrators verify the judgments of experts--the members of the advisory committees--who assisted the project staff in describing the important tasks of the teacher's job and the incumbent teachers who participated in the interviews. All of the tasks included in the inventory were performed by a majority of the teachers participating in the study and were judged to be important and desirable for a beginning teacher to be able to perform when starting in the profession, and were tasks that the most effective teachers perform better than the less effective teachers. These findings are consistent for the teachers surveyed in Georgia and New Jersey and, in the majority of instances, for the smaller sample of teachers in California. Based on these results, all tasks were retained for further analyses.

Correlation of Teacher and Administrator Ratings of Job Tasks

For each of the three rating scales, the profile of mean ratings across the 83 tasks was correlated to determine whether teachers and administrators were evaluating the tasks in a similar fashion. That is, does the rank ordering of the tasks with respect to teachers' ratings of importance agree with the administrators rank ordering. Similar correlations of task profile similarity across regions are also shown in Table 9. These correlations range from .81 to .79, indicating that these groups have similar patterns in the

Table 9

Intercorrelations of Average Task Ratings Over the 83 Tasks for Administrators and Teachers in Each of the Three Regions

	IMPORTANCE			
	1	2	3	4
1. Administrators	1.00			
2. California Teachers	.81	1.00		
3. Georgia Teachers	.88	.92	1.00	
4. New Jersey Teachers	.88	.91	.96	1.00

	EXTENT AT ENTRY			
	1	2	3	4
1. Administrators	1.00			
2. California Teachers	.88	1.00		
3. Georgia Teachers	.94	.94	1.00	
4. New Jersey Teachers	.94	.94	.97	1.00

	RELATIONSHIP			
	1	2	3	4
1. Administrators	1.00			
2. California Teachers	.86	1.00		
3. Georgia Teachers	.90	.92	1.00	
4. New Jersey Teachers	.90	.92	.97	1.00

All Teachers vs. All Administrators

1. Importance	.93
2. Extent at Entry	.95
3. Relationship	.91

way they rated tasks. Tasks that were rated highly in one region were rated in essentially the same way by teachers in the other regions, as well as by their administrators. In addition, the correlation of ratings by the total sample of teachers with those of administrators ranged from .91 to .95.

Structure of the Teacher's Job

The foregoing discussion has focused on the tasks of teachers in terms of their importance, the extent of ability to perform them at entry into the job and the relationship of task performance to overall job performance. This section describes additional statistical analyses of the task ratings to explore the structure of the job and determine whether there is sufficient similarity across teachers in the regions surveyed to define a common set of functions. In addition, comparisons are made of the way the tasks are described by teachers grouped by various characteristics such as age, sex, race, education, years of experience, class size and current assignment.

The structure of the job of teachers provides a basis for establishing the job relatedness of the knowledge areas now covered in the NTE Core Battery and for identifying additional knowledge areas that might be assessed.

The research plan was designed to arrive at a common structure of the professional functions of teachers and then to evaluate the degree to which that structure "fits" in each of the three participating school regions. If the common structure was indeed applicable to the teachers in the three regions, project staff felt that the linkage of the specific knowledge areas to that structure could then be investigated.

The Target Sample: In order to determine whether a common structure of the professional functions of teachers existed, project staff extracted a subsample of teachers matched on such characteristics as sex, race, education, years of teaching experience and grade assignment for initial factor analysis. The matching of the samples was carried out in order to reduce the effects, if any, of an unequal representation of these characteristics in the samples to be analyzed. By analyzing this subsample and equally representing teachers with these characteristics, project staff hypothesized that any differences found in the structure of the job in subsequent regional analyses would then more likely be due to differences in school systems than to the composition of the teacher sample surveyed in each school system. The number of cases in the California sample was not sufficient for the initial analyses planned, and they were, therefore, not included in the target sample. Using the biodata collected as part of the inventory, two comparable samples of 341 teachers each were selected from the Georgia and New Jersey samples. The sample from each district contained 26 teachers chosen from each elementary school grade (K-8) and about 27 from each secondary grade (9-12). The total sample of 682 teachers, described in Table 10, had a median age of 37 years and was 81% female. Seventy percent (70%) of the sample was White, 23% Black and 7% were classified as others. Fifty-six percent (56%) held Bachelor's degrees and 44% held Master's degrees. All had been teaching more than one year, with the median experience at 13 years, and the median class size taught was 27 students.

TABLE 10

DEMOGRAPHIC CHARACTERISTICS OF THE MATCHED SAMPLE OF TEACHERS

	CALIF		GEORGIA		JERS CTY		TOTAL	
NUMBER OF OBSERVATIONS	0		341		341		682	
ITEMS AND ALTERNATIVES	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT	FREQ	PERCENT
DISTRICT								
BRENTWOOD	0	0.0	0	0.0	0	0.0	0	0.0
MANTECA	0	0.0	0	0.0	0	0.0	0	0.0
OAKDALE	0	0.0	0	0.0	0	0.0	0	0.0
RIVERBANK	0	0.0	0	0.0	0	0.0	0	0.0
DOUGHERTY	0	0.0	341	100.00	0	0.0	341	50.00
JERSEY CITY	0	0.0	0	0.0	341	100.00	341	50.00
TOTAL RESPONDING	0	0.0	341	100.00	341	100.00	682	100.00
AGE								
UNDER 25	0	0.0	8	2.35	8	2.36	16	2.35
25 - 34	0	0.0	112	32.84	121	35.69	233	34.26
35 - 44	0	0.0	141	41.35	148	43.66	289	42.50
45 - 54	0	0.0	64	18.77	44	12.98	108	15.88
55 - 64	0	0.0	16	4.69	17	5.01	33	4.85
65 OR OVER	0	0.0	0	0.0	1	0.29	1	0.15
TOTAL RESPONDING	0	0.0	341	100.00	339	99.41	680	99.71
SEX								
FEMALE	0	0.0	276	80.94	275	80.65	551	80.79
MALE	0	0.0	65	19.06	66	19.35	131	19.21
TOTAL RESPONDING	0	0.0	341	100.00	341	100.00	682	100.00
ETHNICITY								
INDIAN	0	0.0	0	0.0	2	0.59	2	0.29
ASIAN AMERICAN	0	0.0	0	0.0	4	1.17	4	0.59
BLACK	0	0.0	101	29.62	58	17.01	159	23.31
HISPANIC	0	0.0	1	0.29	20	5.87	21	3.08
WHITE	0	0.0	233	68.33	242	70.97	475	69.65
OTHER	0	0.0	6	1.76	15	4.40	21	3.08
TOTAL RESPONDING	0	0.0	341	100.00	341	100.00	682	100.00
HIGHEST DEGREE								
LESS THAN BACHELORS	0	0.0	0	0.0	1	0.29	1	0.15
BACHELORS	0	0.0	169	50.00	208	61.18	377	55.60
MASTERS	0	0.0	169	50.00	128	37.65	297	43.81
DOCTORATE	0	0.0	0	0.0	3	0.88	3	0.44
TOTAL RESPONDING	0	0.0	338	99.12	340	99.71	678	99.41
YEARS TEACHING								
LESS THAN 1	0	0.0	0	0.0	0	0.0	0	0.0
1 - 2	0	0.0	17	4.99	11	3.23	28	4.11
3 - 5	0	0.0	48	14.08	34	9.97	82	12.02
6 - 10	0	0.0	79	23.17	85	24.93	164	24.05
11 - 15	0	0.0	95	27.86	116	34.02	211	30.94
16 - 20	0	0.0	56	16.42	71	20.82	127	18.62
21 OR MORE	0	0.0	46	13.49	24	7.04	70	10.26
TOTAL RESPONDING	0	0.0	341	100.00	341	100.00	682	100.00
NUMBER OF STUDENTS IN CLASS								
1 - 4	0	0.0	0	0.0	0	0.0	0	0.0
5 - 9	0	0.0	7	2.16	4	1.22	11	1.69
10 - 14	0	0.0	5	1.54	9	2.74	14	2.15
15 - 19	0	0.0	19	5.86	35	10.67	54	8.28
20 - 24	0	0.0	64	19.75	112	34.15	176	26.99
25 - 29	0	0.0	147	45.37	131	39.94	278	42.64
30 - 34	0	0.0	66	20.37	27	8.23	93	14.26
35 - 39	0	0.0	9	2.78	1	0.30	10	1.53
40 - 44	0	0.0	2	0.62	2	0.61	4	0.61
45 - 49	0	0.0	3	0.93	1	0.30	4	0.61
50 OR MORE	0	0.0	2	0.62	6	1.83	8	1.23
TOTAL RESPONDING	0	0.0	324	95.01	328	96.19	652	95.60

Principal Components Analysis

In developing the inventory, the External Advisory Committee grouped the tasks into five broad categories--(I.) Planning the Instructional Program and Selecting the Instructional Materials, (II.) Teaching-Implementing the Planned Instructional Program, (III.) Evaluating Student Learning and Instructional Effectiveness, (IV.) Supervising, Managing, Guiding and Counseling Students, and a miscellaneous category--(V.) Other Professional Duties. These groupings were arrived at by a judgmental process, guided by the advice of the External Advisory Committee.

A principal components analysis with varimax rotation (Kaiser, 1958) was carried out using the importance ratings of the tasks given by the matched sample of 682 teachers. This analysis was conducted in order to evaluate alternative groupings of tasks that would identify homogeneous clusters of tasks suitable for use in comparing teaching functions over school districts and grade levels. The importance rating was chosen in order to ensure that the subsequent structure would reflect critical dimensions of the job. After a review of several solutions, it was concluded that the six-factor solution provided the most parsimonious representation of the important professional functions of teachers. Six factors accounted for 46 percent of the total variance and a plot of the proportion of variance accounted for by each factor showed a point of inflection between the sixth and the seventh factors.

The six-factor structure is represented in Diagram 1. In the diagram, the original judgmental dimensions are listed down the left side of the page with their accompanying task numbers. Across the top of the page, the six principal components chosen are listed. An X is placed at the intersection of the task number and the one of the six components on which the task loaded most highly. All 83 tasks loaded .30 or higher on at least one factor or component.

DIAGRAM 1: OUTLINE OF THE RESULTS OF PRINCIPAL COMPONENTS ANALYSIS OF TASKS

Original Inventory Structure	Principal Components Structure						
	Task	I	II	III	IV	V	VI
1. Planning the Instructional Program and Selecting the Instructional Materials	1				X		
	2				X		
	3				X		
	4				X		
	5				X		
	6				X		
	7				X		
	8				X		
	9				X		
	10				X		
	11				X		
	12				X		
	13				X		
	14				X		
II A. Teaching-Implementing the Planned Instructional Program	15				X		
	16				X		
	17						X
	18						X
	19					X	
	20						X
	21					X	
	22					X	
	23						X
	24						X
	25					X	
	26					X	
	27					X	
	28					X	
	29					X	
	30					X	
	31					X	

Factors:
I. Managing and Influencing Student Behavior
II. Clerical, Administrative and Other Professional Functions
III. Assessing, Grading and Recording Student Learning Progress and Evaluating Instructional Effectiveness
IV. Planning the Lessons, Selecting the Materials and Previewing the Instructional Program
V. Implementing the Planned Instructional Program Using a Variety of Techniques
VI. Identifying Students With Individual or Similar Instructional Needs and Teaching Them Accordingly

DIAGRAM 1: (continued)

Original Inventory Structure	Task	I	II	III	IV	V	VI
II B. Teaching Approaches	32					X	
	33					X	
	34					X	
	35					X	
	36					X	
	37					X	
	38					X	
	39					X	
	40						X
III. Evaluating Student Learning and Instructional Effectiveness	41		X				
	42		X				
	43		X				
	44		X				
	45		X				
	46		X				
	47		X				
	48		X				
	49						X
	50						X
	51		X				
	52		X				
	53		X				
	54						X
	55		X				

Principal Components Structure: columns I–VI

Factors:
- I. Managing and Influencing Student Behavior
- II. Clerical, Administrative and Other Professional Functions
- III. Assessing, Grading and Recording Student Learning Progress and Evaluating Instructional Effectiveness
- IV. Planning the Lessons, Selecting the Materials and Previewing the Instructional Program
- V. Implementing the Planned Instructional Program Using a Variety of Techniques
- VI. Identifying Students With Individual or Similar Instructional Needs and Teaching Them Accordingly

DIAGRAM 1: (continued)

Original Inventory Structure	Principal Components Structure						
	Task	I	II	III	IV	V	VI
IV. Supervising, Managing Guiding and Counseling Students	56	X					
	57	X					
	58	X					
	59	X					
	60	X					
	61	X					
	62	X					
	63	X					
	64	X					
	65	X					
	66						X
	67	X					
	68	X					
	69	X					
	70	X					
	71		X				
	72		X				
	73	X					
V. Other Professional Duties	74		X				
	75		X				
	76		X				
	77		X				
	78		X				
	79		X				
	80		X				
	81		X				
	82		X				
	83		X				

Factors:
I. Managing and Influencing Student Behavior
II. Clerical, Administrative and Other Professional Functions
III. Assessing, Grading and Recording Student Learning Progress and Evaluating Instructional Effectiveness
IV. Planning the Lessons, Selecting the Materials and Previewing the Instructional Program
V. Implementing the Planned Instructional Program Using a Variety of Techniques
VI. Identifying Students With Individual or Similar Instructional Needs and Teaching Them Accordingly

A summary of each of the six factors chosen is as follows:

FACTOR I: MANAGING AND INFLUENCING STUDENT BEHAVIOR

This factor includes almost all of the duties included in the job analysis inventory under the heading of Supervising, Managing, Guiding and Counseling students. The factor groups a total of 15 job activities concerned with the management and control of students. It involves establishing rules, communicating and exemplifying standards of social behavior including cultural and gender awareness, monitoring behavior in and out of the classroom, praising and correcting students when necessary, and recognizing and appropriately referring students with health problems. It also includes interaction with parents, guardians, other teachers or other school personnel to understand student behavior and facilitate student development.

FACTOR II: CLERICAL, ADMINISTRATIVE AND OTHER PROFESSIONAL FUNCTIONS

This set of items was originally categorized as "Other Professional Duties" but this factor groups together three major sets of activities:

1. Clerical and administrative activities such as preparing reports, letters; duplicating forms, quizzes, etc.; filing; taking inventory; distributing supplies, keeping records of school property and monitoring the physical environment in the classroom and the school

2. Collaboration and interaction activities with other teachers, colleagues and others individually or in committees

3. Self-improvement activities that enhance teachers' qualifications and abilities and help them to keep abreast of developments in education and in their subject specialty

FACTOR III: ASSESSING, GRADING AND RECORDING STUDENT LEARNING PROGRESS AND EVALUATING INSTRUCTIONAL EFFECTIVENESS

The items in this factor were originally grouped under the heading of "Evaluating Student Learning and Instructional Effectiveness". The majority of tasks involve assessment in some form (e.g., quizzes, tests, written exercises, homework assignments, classroom performance) but they also include the grading of the results and the preparation of records of the learning behavior exhibited. The evaluation and remediation of written and spoken English language skills is included in this factor, apparently as an intrinsic component of the assessment of classroom learning behavior. The identification and referral of health and physical as well as learning problems is also included.

FACTOR IV: PLANNING THE LESSONS, SELECTING THE MATERIALS AND PREVIEWING THE INSTRUCTIONAL PROGRAM

All of the tasks originally grouped under "Planning the Instructional Program and Selecting Instructional Materials" are included in this factor. In addition, the tasks of providing the students with an overview of the lessons and program goals and using information from assessment to determine their readiness to learn are also included.

FACTOR V: IMPLEMENTING THE PLANNED INSTRUCTIONAL PROGRAM USING A VARIETY OF APPROACHES

The majority of tasks originally grouped under the rubric of "Teaching-Implementing the Planned Instructional Program" are included in this factor. These tasks are directly concerned with the delivery of instruction, including instruction in a specific subject area, and they entail a wide variety of methods, techniques and approaches to teaching strategy and tactics and the use of a variety of teaching aids and equipment.

FACTOR VI: IDENTIFYING STUDENTS WITH INDIVIDUAL OR SIMILAR INSTRUCTIONAL NEEDS AND TEACHING THEM ACCORDINGLY

This factor is a composite of tasks of several of the original dimensions. It includes the use of information gained from standardized tests and interviews with parents or guardians, school staff and others to identify students with special or similar needs. The factor includes modification and delivery of instruction and provision of individual assistance to meet those needs. It also involves the teaching of a variety of areas of subject matter and the use of teaching strategies and tactics such as peer instruction and special assignments (e.g., class monitor, team captain, etc.) to facilitate student development.

In general, the original rational five-dimensional task structure of the inventory was confirmed by the results of the factor analysis of the importance ratings of the job tasks. For example, as shown in Diagram 1, the importance ratings for all 14 tasks orginally included in section I--Planning the Instructional Program--loaded highest (.30 or above) on Factor IV. Two tasks originally grouped with tasks classified in IIA (Implementing the Planned Instructional Program) also received their highest loadings on Factor IV. These tasks were--Give students an overview of their lessons, state program goals (#15) and Use information from assessment techniques (#16).

Similarly, two tasks originally included in section IV--Supervising, Managing, Guiding and Counseling Students--Prepare reports or letters (#71) and Supervise or guide the work of other adults in the class (#72) joined the ten tasks originally summarized as Section V--Other Professional Duties--loading highest on Factor II. It is interesting to note that a minor distinction noted by the External Advisory Committee, as reflected in the tentative separation of the areas of teaching/implementing and teaching approaches, was not borne out in the factor analysis. The original classifications of sections IIA and IIB collapsed to form Factor V. The importance ratings of only ten other job tasks failed to load highest on the dimensions as originally classified in the inventory. These ten tasks all deal with the identification of students with individual instructional needs and they joined together to form Factor VI.

The list of tasks and the rotated loadings on the primary components is contained in Appendix G. The correlation matrix, latent roots, communalities and rotated loadings on the six factors is given in Appendix H*. The correlations between scale (factor) scores for various groups of teachers, using the mean rating for each teacher on each of the six-factors are provided in Appendix I*. All six-factor scores are similarly correlated (about .60) with each other, regardless of whether the comparisons are made among elementary, secondary, matched sample or all teachers in each of the regions surveyed. Therefore, the scale (factor) scores seem to be assessing different aspects of the job of teacher.

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*Starred appendices are published separately.

Comparison of Factor Structures by Group

Comparison of Factor Structures: The focus of this phase of the project was to identify, if possible, the similarity of functions, regardless of where the teacher worked, in order to provide a common basis for documenting the job relatedness of the content domain of the NTE Core Battery. The question to be addressed was whether the factor structure obtained using the matched sample was an appropriate description of the functions of teachers in each of the three participating school regions. The available data were not ideal for a clear-cut evaluation of this issue, but project staff attempted to design a series of analyses that would provide information from which reasonable conclusions could be drawn.

Three methods were used to explore this question; one developed by Tucker (1951) evaluates the similarity of factor structures obtained on different samples using a factor-by-factor evaluation of congruity. The second method, developed by Joreskog (1971) and programmed for computer by Sorbom and Joreskog (1976), is known as confirmatory factor analysis. This technique allows one to test statistically for the "goodness of fit" of an empirical analysis of the factor structure in a particular group against a model that is derived either rationally or, as in this case, by the exploratory varimax rotation of a principal components analysis of the matched sample. The third method consisted of comparing the average importance ratings by subgroups over the factors. This latter method had been used in previous research (Rosenfeld and Thornton, 1974; 1976a; 1976b; 1976c; 1978; 1979).

Tucker Analysis: The Tucker methodology uses the factor loadings on all of the tasks, independently rotated to varimax solution, in order to obtain, for each factor, a correlation-like coefficient of congruence. Four separate comparisons were made against the factor structure derived from the matched sample of teachers described earlier. These involved comparisons with the factor structures obtained from: (1) all elementary school teachers combined from New Jersey and Georgia, (2) all secondary teachers combined from New Jersey and Georgia, (3) all New Jersey teachers, and (4) all Georgia teachers. The California sample, with 83 variables and only 191 cases, was judged to be too small for stable factor analysis and factor structure comparisons and was consequently not included in this phase of the analysis.

The six-factor structure obtained in the matched sample was found to be congruent with the factor structure across the samples of secondary teachers, all Georgia teachers and all New Jersey teachers. For elementary teachers, the first five factors were found to be congruent; the sixth was not. Table 11 contains the coefficients of congruence for each of the groups compared.

Based on the results of the Tucker analyses, it appears that the common factor structure derived from the matched sample of teachers from New Jersey and Georgia is similar to the factor structure obtained from the combined (New Jersey and Georgia) group of secondary teachers and for all teachers in New Jersey and in Georgia. The coefficients among all factors for the four groups are contained in Appendix I*. The results are not conclusive, however, since there is overlap among the samples (i.e., 341 of the Georgia teachers and 341

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*Starred appendices are published separately.

Table 11

Comparison of Factor Structures Using Tucker Methodology For New Jersey and Georgia Teachers With Matched Sample Result

		Matched Sample Factors (N = 682)					
	Factors	I	II	III	IV	V	VI
Elementary Teachers (N = 1,209)	I	.99					
	II		.99				
	III			.98			
	IV				.98		
	V					.98	
	VI						.59

Secondary Teachers (New Jersey and Georgia combined) With Matched Sample

		Matched Sample Factors (N = 682)					
	Factors	I	II	III	IV	V	VI
Secondary Teachers (N = 381)	I	.98					
	II		.98				
	III			.98			
	IV				.93		
	V					.87	
	VI						.94

All New Jersey Teachers With Matched Sample

		Matched Sample Factors (N = 682)					
	Factors	I	II	III	IV	V	VI
All New Jersey Teachers (N = 1,085)	I	.99					
	II		.99				
	III			.99			
	IV				.98		
	V					.97	
	VI						.86

All Georgia Teachers With Matched Sample

		Matched Sample Factors (N = 682)					
	Factors	I	II	III	IV	V	VI
All Georgia Teachers (N = 563)	I	.99					
	II		.97				
	III			.97			
	IV				.98		
	V					.99	
	VI						.92

of the New Jersey teachers are included in both the matched sample and the total New Jersey and Georgia samples) and since congruence was not found for elementary teachers on the sixth factor. For these reasons, a second type of comparison of factor structures was made that was not subject to this overlap. The results of this comparison are described below.

Confirmatory Factor Analysis

In this type of analysis, the target structure to be confirmed can be derived either rationally or empirically. In the present study, the empirically derived common factor structure from the matched sample was used as the a priori grouping of tasks to be confirmed. Comparisons to this structure were made using the complete Georgia and New Jersey samples. The analysis provides an estimate of the degree to which the matched sample factor structure is confirmed within each of these groups, independent of the statistical findings with the matched group.

The two-stage least squares part of the Lisrel VI program (Sorbom & Joreskog, 1976) was used with 30 of the 83 job tasks, that is, the five tasks with the highest loadings on each factor identified in the matched group analysis. The number of tasks used was limited by the computer processing capacity of the program. The results of this comparison, outlined in Table 12, were interpreted by project staff as confirming the six-factor structure in the Georgia sample. All the hypothesized factor ratings were at least .45 and typically in the .60 to .70 range. The phi values, which can be interpreted as correlations between the respective factors were less than .60 in Georgia. However, in New Jersey Factor V and Factor VI were highly correlated (.87), suggesting that the job has five rather than six dimensions in New Jersey.

Table 12

Results of Confirmatory Factor Analysis Using New Jersey and Georgia Teachers

New Jersey Analysis (N = 1,085)

Factors

	I	II	III	IV	V	VI
I	1.00					
II	.72	1.00				
III	.76	.78	1.00			
IV	.63	.61	.79	1.00		
V	.65	.54	.76	.79	1.00	
VI	.59	.61	.74	.76	.87	1.00

Georgia Analysis (N = 563)

Factors

	I	II	III	IV	V	VI
I	1.00					
II	.41	1.00				
III	.59	.47	1.00			
IV	.41	.56	.49	1.00		
V	.54	.57	.59	.54	1.00	
VI	.55	.59	.57	.51	.61	1.00

Factors:
I. Managing and Influencing Student Behavior
II. Clerical, Administrative and Other Professional Functions
III. Assessing, Grading and Recording Student Learning Progress and Evaluating Instructional Effectiveness
IV. Planning the Lessons, Selecting the Materials and Previewing the Instructional Program
V. Implementing the Planned Instructional Program Using a Variety of Techniques
VI. Identifying Students With Individual or Similar Instructional Needs and Teaching Them Accordingly

In the confirmatory analyses described above, the interpretation of the results is partially based on the nature of the process involved in originally arriving at the six factors. The inventory administered to teachers had clustered the tasks into coherent rational groups and the matched group factor analysis had essentially confirmed this grouping although it did identify a sixth factor containing ten tasks originally classified in three different rational groupings. The confirmatory analyses were therefore not exploratory; they were designed to test the applicability of the matched sample structure.

In this analysis, it would appear that the common factor structure is a relevant grouping of tasks for Georgia teachers and is not disconfirmed for New Jersey teachers. However, the results by themselves are not conclusive since the comparisons are made on the basis of only 30 of the total of 83 tasks. Therefore, a third series of comparisons across groups was made.

Comparison of Mean Importance Ratings of Tasks Grouped by Factor

This methodology involves the direct comparison of the importance ratings of tasks grouped by factor. For each subanalysis the average importance ratings of the groups were computed for all tasks that had been assigned to each factor as a result of the original principal components analysis (see Diagram 1, page V-11). These mean ratings were then compared to determine if each factor was rated as being important by district, teaching level, race, age, sex, years of teaching experience, level of grade taught, class size and current assignment. The complete results of this analysis are contained in Appendix J. Comparisons by district and by teaching level are presented below. All teachers in the three participating school districts were included in this analysis.

Statistical tests were not applied to these data because the major point of comparison was whether or not the groups indicated, by their ratings, that the factors were important parts of their jobs (e.g., a mean rating of 2.0 or higher).

The mean ratings by school district are presented in Table 13. The data in Table 13 indicate that all factors were judged to be "very important" by the teachers in each of the three school districts. The three factors receiving the highest importance ratings in each of the three school districts were I, III, and V.

Table 13

Mean Importance Ratings of Tasks Grouped by Factor by District

	California			Georgia			New Jersey		
Factors	N	M	SD	N	M	SD	N	M	SD
I	183	3.28	.48	539	3.48	.45	1,068	3.44	.44
II	183	2.58	.63	536	2.88	.61	1,055	2.77	.65
III	188	3.20	.55	547	3.43	.45	1,069	3.39	.51
IV	190	2.88	.51	553	3.07	.50	1,072	2.44	.52
V	189	2.99	.49	550	3.20	.45	1,073	3.11	.48
VI	188	2.72	.59	545	3.04	.51	1,068	2.96	.52

Factors:
I. Managing and Influencing Student Behavior
II. Clerical, Administrative and Other Professional Functions
III. Assessing, Grading and Recording Student Learning Progress and Evaluating Instructional Effectiveness
IV. Planning the Lessons, Selecting the Materials and Previewing the Instructional Program
V. Implementing the Planned Instructional Program Using a Variety of Techniques
VI. Identifying Students With Individual or Similar Instructional Needs and Teaching Them Accordingly

The second aspect on which similarity comparisons were of concern was across teaching levels. An analysis similar to the previous one was conducted after combining the teachers from all three districts into two groups, namely elementary teachers (Grades K-8) and secondary teachers (Grades 9-12). The mean importance ratings of the tasks for these two groups are contained in Table 14. The data indicate that all factors were judged by both elementary and secondary teachers to be "very important". Again, Factors I, III, and V received the highest importance ratings for each teaching level.

Table 14

Mean Importance Ratings of Tasks Grouped by Factor by Teaching Level

	K - 8			9 - 12		
Factor	N	M	SD	N	M	SD
I	1,128	3.47	.48	423	3.36	.51
II	1,121	2.78	.65	417	2.81	.66
III	1,139	3.42	.49	427	3.33	.51
IV	1,144	2.97	.52	427	2.99	.51
V	1,142	3.14	.48	428	3.10	.48
VI	1,139	3.04	.50	423	2.73	.56

Factors:
I. Managing and Influencing Student Behavior
II. Clerical, Administrative and Other Professional Functions
III. Assessing, Grading and Recording Student Learning Progress and Evaluating Instructional Effectiveness
IV. Planning the Lessons, Selecting the Materials and Previewing the Instructional Program
V. Implementing the Planned Instructional Program Using a Variety of Techniques
VI. Identifying Students With Individual or Similar Instructional Needs and Teaching Them Accordingly

In terms of relative importance, there is a clear consensus in all three districts for secondary teachers and for elementary school teachers as to the three "most important" factors.

Further comparisons were made by age, sex, race, education, number of years teaching, current assignment and class size and these are contained in Appendix J. In all of these comparisons, the average ratings of the tasks in all six-factors indicate that the factors were "very important" for all subgroups. Grouping of the tasks within the six-factor structure, therefore identifies important core functions performed by groups of teachers.

Summary of Analyses

The Tucker Analysis, the Confirmatory Factor Analysis and the comparison of mean importance ratings of subgroups are different ways of evaluating the matched sample factor structure to determine the feasibility of using it as a generalized description of the professional functions of teachers across regions and grade levels. Although each method of analysis has deficiencies, the results of these analyses, which are summarized in Table 15, lead project staff to conclude that the matched group factor solution has identified six dimensions of the job of teacher that are important core functions performed by groups of job incumbents and that the matched group factor solution is suitable for use in documenting the job relatedness of the knowledge areas assessed in the NTE Core Battery.

Table 15

Summary of Results Obtained From Factor Structure Comparison Methods

METHODS	FACTORS					
	I	II	III	IV	V	VI
Tucker						
Georgia	X	X	X	X	X	X
New Jersey	X	X	X	X	X	X
Elementary	X	X	X	X	X	
Secondary	X	X	X	X	X	X
Confirmatory						
Georgia	X	X	X	X	X	X
New Jersey	X	X	X	X	X	
Mean Ratings						
Georgia	X	X	X	X	X	X
New Jersey	X	X	X	X	X	X
California	X	X	X	X	X	X
Elementary	X	X	X	X	X	X
Secondary	X	X	X	X	X	X

X Denotes confirmation of factor by method.

Factors:
I. Managing and Influencing Student Behavior
II. Clerical, Administrative and Other Professional Functions
III. Assessing, Grading and Recording Student Learning Progress and Evaluating Instructional Effectiveness
IV. Planning the Lessons, Selecting the Materials and Previewing the Instructional Program
V. Implementing the Planned Instructional Program Using a Variety of Techniques
VI. Identifying Students With Individual or Similar Instructional Needs and Teaching Them Accordingly

VI. ANALYSIS AND LINKING OF KNOWLEDGE AREAS TO JOB DIMENSIONS

This section will deal with the steps taken to provide a basis for evaluating and further documenting the job relatedness of the knowledge areas covered in the current NTE Core Battery and for evaluating the additional knowledge areas proposed for possible inclusion in the battery.

As previously indicated, the inventory included a list of 59 knowledge areas obtained from the relevant literature, from suggestions by teachers interviewed in various school districts, from the published specifications of the content of the NTE Core Battery and from the advice of the Internal and External Advisory Committees. The first 35 knowledge areas listed in the inventory (#84-#118) represented NTE test specification content areas, except for Speaking (#88), which was included among the communication skills but is not currently assessed by the NTE examination. The remaining items (#119-#142) represented areas of course content in teacher training colleges or other kinds of knowledge.

Teachers and administrators responding to the inventory rated the importance of each of the 59 knowledge areas to the job, the degree to which each was related to overall job success and the cognitive (complexity) level at which each was typically used on the job. The ratings by over 1,800 respondents to the job analysis inventory were intended to provide statistical verification of the judgments of the experts involved in the development of the inventory and to provide a basis for deciding which knowledge areas were to be assessed, how best to link each to job functions and the appropriate range and level at which to assess them.

Following is a description of the analyses used to evaluate the knowledge areas considered important by teachers participating in the study as well as the procedures used to link these knowledges to the job dimensions describing the professional functions of teachers.

Reliability of Ratings

Analysis of variance (Winer, 1962; intraclass correlations, Guilford, 1956) was used to estimate and describe the consistency with which teachers and administrators rated the knowledge areas in the inventory on the scales of importance, relationship to job success and level of typical use. The reliability of ratings of a single teacher ranged from .37 to .42 and, for a single administrator, from .37 to .46. When these reliabilities were "stepped-up" for the total samples of teachers and administrators, the reliabilities (Table 16) were .99 for each of the three rating scales used by teachers and .98 for the three scales rated by administrators. These results indicate that if the knowledge area section of this inventory were to be administered to a similarly selected sample of teachers and administrators of the same size from the same population the average ratings would be nearly identical.

Table 16

Reliability of Ratings of Knowledge Areas
by Teachers and Administrators

	Teachers	Administrators
Reliability of a Single Rater by Rating Scale		
Importance	.37	.46
Relationship	.42	.37
Level of Use	.39	.42
Reliability of the Total Rating by Rating Scale		
Importance	.99	.98
Relationship	.99	.98
Level of Use	.99	.98

Intercorrelations of Rating Scales

In order to evaluate the degree to which teachers and administrators judged the knowledge areas on the three rating scales in a similar manner, intercorrelations were computed. The results for each group are provided in Table 17. The correlations of teacher ratings of knowledge areas on the three scales range from .34 to .51 and correlations for administrators range from .37 to .55. These results reveal that while the rating dimensions are related to each other, each scale provides a degree of unique information for use in evaluating the knowledge areas.

Table 17

The Average Intercorrelations of Teacher and Administrator Ratings Over the 59 Knowledge Areas for the Three Rating Scales

	Importance	Relationship	Level of Use
Teacher Ratings (N = 1,839)			
Importance	1.00	.51	.34
Relationship		1.00	.41
Level of Use			1.00
Administrator Ratings (N = 89)			
Importance	1.00	.55	.37
Relationship		1.00	.40
Level of Use			1.00

Mean Ratings of Knowledge Areas

Mean ratings of knowledge areas were computed separately by district for teachers and administrators for each of the three rating scales: importance, relationship to job success and typical level of use. The percent of teachers using each knowledge area (e.g., rated above zero on the typical level of use scale) was also calculated for elementary and secondary school teachers in each region in this study. These percentages are sufficiently high to warrant the conclusion that the majority of teachers in these regions, in both elementary and secondary schools, use each of the 59 knowledge areas in their work. These results are contained in Appendix K. A description of the findings for each rating scale is provided below.

Mean Ratings of Importance: Mean importance ratings were computed to verify the judgments of the various advisory committees and to determine the relative importance of each knowledge area to the teacher's job. Project staff established a minimum standard of 2.0 ("moderately important" or higher) as the level of acceptability for inclusion of a knowledge area in further analyses. All 59 knowledge areas were rated as important by the teachers from Georgia and New Jersey. California teachers also rated all areas except History of education (#137) as important.

Among the areas highest in importance for teachers and administrators were the Communication Skills (#84-#88) and certain professional skills, Classroom management (#141) and Instructional techniques (#140). Among the lower rated, but still important, areas were History of education (#137) and Bilingual/multicultural education (#123).

Mean Ratings of Relationship: Mean ratings of the relationship of each knowledge area to overall successful job performance were computed to provide further information about each knowledge area, in case it should become necessary to sample only the more critical areas in the assessment. In this instance, a mean of 1.5 was adopted by project staff as the minimum standard. With the exception of the California respondents, all other teachers and administrators judged all of the knowledge areas to be related to overall successful job performance according to this standard. In California, both teachers and administrators rated History of education (#137) below the 1.5 standard. Administrators also rated Bilingual/multicultural education (#123) below the standard. In the total sample, the highest-rated areas were Classroom management (#141) and Instructional techniques (#140). Among the lower-rated areas, but still related to successful performance, in addition to the two already mentioned in relation to the California results, were Philosophy of education (#139) and Global education (#124).

Mean Ratings of Level of Typical Use of Job Knowledge: This scale was designed to establish a guide for test evaluators and to those constructing or assembling a test to ensure that a test is no more difficult than the job requires. As described earlier, the scale is a modification of Bloom's Taxonomy of Educational Objectives: The Cognitive Domain (1956). Bloom lists six hierarchical levels of cognition: knowledge, comprehension, application, analysis, synthesis and evaluation. The scale in the inventory relates to this hierarchy as follows:

Level of Typical Use: At Which of the Following Levels is this Knowledge or Skill Typically Used by Teachers?

Rating Scale	Cognitive Level
0	(not used)
1	knowledge, comprehension
2	application
3	analysis
4	synthesis, evaluation

While the primary focus of this rating scale is for test construction and validation, the results provide other interesting data about the teacher's job. For example, the highest average levels of cognitive complexity, at the level of analysis, involve Classroom management (#141) and Evaluating student achievement, programs (#112). The lowest levels of cognitive complexity (at a level of application) involve Bilingual/multicultural education (#123) and History of education (#137).

Correlation of Teacher and Administrator Ratings of Knowledge Areas

In order to determine whether teachers and administrators were evaluating the knowledge areas in a similar fashion, the mean ratings of teachers in each region on each knowledge area for each of the three rating scales were correlated with the corresponding ratings by administrators. These correlations are displayed in Table 18. The correlations range from .85 to .99, indicating that all of these groups rated the knowledge areas in a very similar way. Those knowledge areas that were rated by teachers in one region as being important, were rated similarly by the teachers in the other regions and by the administrators. The results were similar for the other two rating scales. Furthermore, the correlation of mean ratings by the total sample of teachers with those of administrators ranged from .91 to .96.

Table 18

Correlation Between Mean Ratings Over the 59 Knowledge Areas by Administrators and by Teachers

	IMPORTANCE			
	1	2	3	4
1. Administrators	1.00			
2. California Teachers	.94	1.00		
3. Georgia Teachers	.94	.96	1.00	
4. New Jersey Teachers	.95	.96	.99	1.00

	RELATIONSHIP			
	1	2	3	4
1. Administrators	1.00			
2. California Teachers	.85	1.00		
3. Georgia Teachers	.93	.94	1.00	
4. New Jersey Teachers	.92	.95	.96	1.00

	LEVEL OF USE			
	1	2	3	4
1. Administrators	1.00			
2. California Teachers	.90	1.00		
3. Georgia Teachers	.88	.89	1.00	
4. New Jersey Teachers	.91	.90	.96	1.00

All Teachers VS. All Administrators

1. Importance	.96
2. Relationship	.94
3. Level of Use	.91

Statistically Linking Knowledge Areas to Job Dimensions

Previous sections of this report describe how teachers rated the importance of job tasks and how these ratings were analyzed to structure the tasks into six job factors. Ratings of importance were also used to indicate the importance of each knowledge area to the job as a whole. These two sets of ratings were subsequently used to provide an indication of the linkages between each of the 59 knowledge areas and each of the six job dimensions. By correlating importance ratings of each knowledge area with factor scores associated with each job dimension it was possible to obtain some indication of which knowledge areas appeared to be most related to which parts of the job. Project staff theorized that the job-dimension ratings that correlated highest with the ratings of the knowledge areas were most likely to provide the best practical basis for operationally defining how the knowledge areas were used in the job. This part of the linking process was intended to provide a "road map" to guide the test development and validation process toward a documented set of relationships by which the content, range and typical level of use of each knowledge area could be described in operational or job-related terms.

Statistical linkages were calculated separately for all elementary school and all secondary school teachers from the three participating school districts, controlling for the unequal number of cases by the equal weighting of each district. The resulting correlations are contained in Appendix L.

Project staff then summarized the results for the two groups of teachers in Table 19. An "X" in Table 19 has been placed opposite each knowledge area under each factor in which the correlation for both elementary and secondary teachers was .25 or higher. The standard was set higher than the minimum

TABLE-19

Statistical Linkages Between Knowledge Areas and
Job Dimensions for Both Elementary and Secondary Teachers

X ≥ .25 for Both Elementary and Secondary Teachers

	CONTENT AREAS		JOB FACTORS					
Item No.	Description (Abbreviated)		I	II	III	IV	V	VI
84	Communication Skills	Listening	X	X	X	X	X	
85		Reading	X	X	X	X	X	
86		Writing (Evaluation)	X	X	X	X	X	X
87		Writing (Essay)	X	X	X	X	X	X
88		Speaking	X		X		X	
89	Literature & Fine Arts	Basic Elements						X
90		Analysis and Interpretation						X
91		Relating to Context						X
92	Maths	Basic Relationships	X		X			
93		Measurement	X	X	X	X	X	
94		Interpreting Graphics, etc.	X	X	X	X	X	X
95	Science	Understanding Energy		X		X	X	X
96		Functions of Living Things	X	X	X	X	X	X
97		Classification Systems		X		X	X	X
98		Organisms and Environment		X		X		X
99		EARTH: Origins and Components		X		X	X	X
100		MATTER: Atoms and Substances		X			X	
101		FORCES: Acting on Matter		X			X	
102		Scientific Method		X		X	X	
103		Role of Science in Life	X	X		X	X	X
104	Social Studies	U.S. History		X	X			X
105		Characteristics of Societies	X	X	X		X	X
106		Culture and Individual	X	X	X		X	X
107		Economics		X				
108		Geography	X	X				
109		Social Science		X			X	X
110	Professional Education	Instructional Planning	X	X	X	X	X	X
111		Implementing Plans	X	X	X	X	X	X
112		Evaluating Achievement	X	X	X	X	X	X
113		Interacting with Others	X	X	X	X	X	X
114		State/U.S. Laws Re: Education	X	X	X	X	X	X
115		Students' Constitutional Rights	X	X	X	X	X	X
116		Outside Influences on Teachers	X	X	X	X	X	X
117		Outside Influences on Students	X	X	X	X	X	X
118		Professionalism	X	X	X	X	X	X
119	Teaching "Levels" (Content)	Early Childhood Education		X				
120		Elementary Education						
121		Secondary Education						
122		Adult Education		X				X
123		Bilingual/Multicultural Education		X			X	X
124		Global Education		X			X	X
125		Reading/Language Arts Education	X		X		X	X
126		Special Education	X	X	X		X	X
127		Vocational and Career Education		X		X	X	X
128	Human Development	Lifespan Development	X	X		X	X	X
129		Learning	X	X	X	X	X	X
130		Emotional and Social	X	X	X	X	X	X
131		Interpersonal Dynamics	X	X		X	X	X
132		Physical Development	X	X	X	X	X	X
133	Other Areas	Computer Application		X			X	X
134		Tests and Measurement	X	X	X	X	X	X
135		Health and First Aid	X	X	X	X	X	X
136	Professional Studies	Methodology	X	X	X	X	X	X
137		History of Education		X		X	X	X
138		Curriculum	X	X	X	X	X	X
139		Philosophy of Education		X		X	X	X
140		Instructional Techniques	X	X	X	X	X	X
141		Classroom Management	X	X	X	X	X	
142		Curriculum Design	X	X	X	X	X	X

level required for statistical significance in order to increase the likelihood of obtaining a meaningful relationship and therefore the likelihood of being able to define the knowledge area operationally in job-related terms.

As can be seen, a common statistical linkage for both elementary and secondary school teachers was found for 57 of the 59 knowledge areas. The two areas for which common linkages were not found were Elementary education (#120) which was statistically linked only for elementary teachers, and Secondary education (#121) which was statistically linked only for secondary teachers. These results were perfectly reasonable under the circumstances. Since the combined elementary and secondary school teachers in each of the three school districts, on average, rated these two knowledge areas as "very important" and since the NTE Core Battery is designed for use across the entire grade range, both elementary and secondary education areas were retained for further analysis.

This road map of job areas to which the knowledge areas were commonly linked by elementary and secondary teachers was interpreted as defining those factors in which a common operational definition (how each knowledge area is used in the job) was most likely to be found. It was deemed necessary, however, that these linkages be evaluated and verified by other methods, which are described in the next section of this report.

Judgmentally Linking Knowledge Areas to Job Dimensions

In order to verify the statistical linkages between knowledge areas and job dimensions, and to obtain other information necessary for test development and validation, the External Advisory Committee was reconvened. The results of the analyses previously described were reviewed with the members, particularly the factor analysis of the tasks, the ratings of the knowledge areas and the statistical linkages.

Committee members were then asked to rate each knowledge area independently in terms of how important possession of the knowledge was to each of the six job factors, using a five-point rating scale:

0 = Of no importance
1 = Of little importance
2 = Moderately important
3 = Very important
4 = Extremely important

The reliability of these ratings was estimated using intraclass correlation (Guilford, 1956). The reliabilities based on the judgments of six External Advisory Committee members are given in Table 20. These reliabilities are lower than those obtained from the much larger samples of teachers and administrators that was described earlier. If one were to set a standard of .80 as the desired level of reliability for the total panel of judges, then a panel of ten committee members would be required; setting a standard of .90, a panel of 22 committee members would be required.

Table 20

Reliability of Advisory Committee Ratings of Importance of 59 Tasks to 6 Factors

	I	II	III	IV	V	VI	Mean Across Six Factors
Reliability of the Total of All Raters	.80	.85	.57	.62	.47	.68	.67
Reliability of a Single Rater	.41	.48	.18	.21	.17	.31	.29

The mean ratings of the group of six committee members are contained in Table 21. Only the results for the 34 areas currently assessed in the NTE Core Battery are contained in this table. The results for the other knowledge areas are described later in this section.

In interpreting these results, project staff, with the agreement of the members of the External Advisory Committee, established a standard of a mean rating of 1.5 or higher (interpreted in scale terms as "moderately important" or higher) as identifying a job factor for which a particular knowledge area was important. The importance of the 59 knowledge areas was previously established through the ratings of 1,839 teachers using a minimum standard of 2.0. The lower standard (1.5) was adopted by the External Advisory Committee members since the function was to link the knowledge areas to specific job dimensions. All 34 knowledge areas in the current NTE Core Battery were judged by the committee members as important to one or more job factors. The average ratings of the Committee are contained in Table 21.

Since the purpose of these analyses was to identify the job factors most likely to produce an operational definition of each knowledge area common to elementary and secondary teachers, project staff combined the linkages obtained from the statistical analysis and the ratings of the committee members to identify those linkages common to both methods. These data are summarized in Table 22.

These results indicate there are common linkages for 32 of the 34 areas currently assessed in the NTE Core Battery. The exceptions are Economics (#107) and Geography (#108). Both of these knowledge areas, however, have been statistically linked to certain job dimensions and judged important for other job dimensions by the External Advisory Committee members (Table 23).

TABLE 21

Mean Ratings of External Advisory Committee Members of the Importance of NTE Core Battery Knowledge Areas to Job Factors

(Number of Raters = 6)

CONTENT AREAS			JOB FACTORS					
Item No.		Description (Abbreviated)	I	II	III	IV	V	VI
84	Communication Skills	Listening	4.0	3.3	3.2	2.2	3.7	3.7
85		Reading	2.7	3.8	3.8	3.8	3.5	3.5
86		Writing (Evaluation)	2.7	3.2	3.3	2.8	3.2	3.5
87		Writing (Essay)	2.3	3.3	3.5	2.5	3.2	2.8
89	Literature & Fine Arts	Basic Elements	1.2	.7	1.8	2.2	2.3	1.7
90		Analysis and Interpretation	1.0	.7	1.7	2.2	2.2	1.5
91		Relating to Context	1.2	.7	1.8	2.3	2.3	1.7
92	Math	Basic Relationships	1.5	2.0	2.2	2.3	2.7	2.2
93		Measurement	.8	1.5	2.2	2.0	2.3	2.0
94		Interpreting Graphics, etc.	1.0	1.3	2.2	2.2	2.7	2.0
95	Science	Understanding Energy	1.0	.7	1.5	1.8	1.8	1.2
96		Functions of Living Things	1.2	.7	1.5	2.0	1.8	1.2
97		Classification Systems	1.0	.5	1.5	1.7	1.7	1.2
98		Organisms and Environment	1.0	.5	1.5	1.8	1.8	1.2
99		EARTH: Origins and Components	.8	.5	1.5	1.8	1.7	1.2
100		MATTER: Atoms and Substances	.8	.5	1.5	1.8	1.7	1.2
101		FORCES: Acting on Matter	.8	.5	1.5	1.8	1.7	1.2
102		Scientific Method	1.0	.7	1.8	2.0	2.2	1.3
103		Role of Science in Life	1.0	.7	1.7	2.2	1.8	1.3
104	Social Studies	U.S. History	1.0	.7	1.7	2.0	2.0	1.2
105		Characteristics of Societies	1.5	.7	1.8	1.8	1.8	1.3
106		Culture and Individual	1.5	.8	1.8	2.0	2.0	1.5
107		Economics	.8	.8	1.7	1.8	1.8	1.2
108		Geography	.8	.7	1.7	1.8	1.8	1.2
109		Social Science	1.2	.8	1.8	1.7	1.8	1.2
110	Professional Education	Instructional Planning	2.7	2.0	2.2	3.8	3.0	3.0
111		Implementing Plans	2.5	1.8	2.3	3.2	3.8	3.0
112		Evaluating Achievement	2.2	2.0	3.7	2.7	3.0	3.0
113		Interacting with Others	3.7	2.7	2.5	2.5	3.7	2.8
114		State/U.S. Laws Re: Education	2.2	1.7	1.5	1.0	1.5	1.7
115		Students' Constitutional Rights	3.2	1.3	2.0	1.3	1.2	1.7
116		Outside Influences on Teachers	2.5	2.3	1.8	1.5	1.5	1.7
117		Outside Influences on Students	3.3	1.7	1.7	1.7	1.7	1.8
118		Professionalism	2.5	3.2	2.3	2.3	3.0	2.5

TABLE 22

Linkages of Knowledge Areas to Job Factors Found in Both the Statistical Analysis and the Ratings of External Advisory Committee Members

(N = 6)

	CONTENT AREAS		JOB FACTORS					
Item No.	Description (Abbreviated)		I	II	III	IV	V	VI
84	Communication Skills	Listening	X	X	X	X	X	
85		Reading	X	X	X	X	X	
86		Writing (Evaluation)	X	X	X	X	X	X
87		Writing (Essay)	X	X	X	X	X	X
89	Literature & Fine Arts	Basic Elements						X
90		Analysis and Interpretation						X
91		Relating to Context						X
92	Maths	Basic Relationships	X		X			
93		Measurement		X	X	X	X	
94		Interpreting Graphics, etc.			X	X	X	X
95	Science	Understanding Energy		X		X	X	
96		Functions of Living Things			X	X	X	
97		Classification Systems				X	X	
98		Organisms and Environment				X		
99		EARTH: Origins and Components				X	X	
100		MATTER: Atoms and Substances					X	
101		FORCES: Acting on Matter					X	
102		Scientific Method				X	X	
103		Role of Science in Life				X	X	
104	Social Studies	U.S. History			X			
105		Characteristics of Societies	X		X		X	
106		Culture and Individuial	X		X		X	X
107		Economics						
108		Geography						
109		Social Science					X	
110	Professional Education	Instructional Planning	X	X	X	X	X	X
111		Implementing Plans	X	X	X	X	X	X
112		Evaluating Achievement	X	X	X	X	X	X
113		Interacting with Others	X	X	X	X	X	X
114		State/U.S. Laws Re: Education	X	X	X	X	X	X
115		Students' Constitutional Rights	X	X	X	X	X	X
116		Outside Influences on Teachers	X	X	X	X	X	X
117		Outside Influences on Students	X	X	X	X	X	X
118		Professionalism	X	X	X	X	X	X

Table 23

Statistical and Advisory Committee Rating Linkages of Economics and Geography

		Job Factors					
		I	II	III	IV	V	VI
Economics	Elementary Teachers (r)	.21	.35	.19	.29	.35	.28
	Secondary Teachers (r)	.26	.33	.23	.20	.23	.20
	Committee Ratings ($\overline{X}$)	0.8	0.8	1.7	1.8	1.8	1.2
Geography	Elementary Teachers (r)	.20	.37	.30	.32	.41	.35
	Secondary Teachers (r)	.27	.27	.24	.18	.24	.22
	Committee Ratings ($\overline{X}$)	0.8	0.7	1.7	1.8	1.8	1.2

For Economics, it appears that the most consistent relationships across all three judgments exist for Factor V: Implementing the Planned Instructional Program Using a Variety of Approaches. The weakest relationship, .23 for secondary teachers, is very close to the minimum standard of .25 used with the other areas. The correlation for elementary teachers is .35 and the members of the advisory committee rated it at an average of 1.8. Factor V, then, appears to be the area in which it is most fruitful to pursue an operational definition.

For Geography, Factor V also appears to be the area in which to consider further definitions of the use of the knowledge. Again, the weakest linkage is with secondary teachers, but it is very close to the minimum standard.

The knowledge areas surveyed, in addition to those in the NTE Core Battery, were also rated by the External Advisory Committee members and the results are contained in Table 24.

Two of the areas, History of education (#137) and Philosophy of education (#139) were rated by the committee members as below "moderately important" on all six job dimensions. It was the consensus of the committee that these two areas not be formally incorporated into the NTE Core Battery. One area, Speaking (#88), was rated as highly important to all job dimensions. It was the consensus of the committee that individual school districts be encouraged to evaluate this area independently in the assessment of newly certified candidates.

The committee recommended that the remaining 22 knowledge areas be evaluated by the appropriate NTE Committees to determine the degree to which they are or should be included within specific sections of the current core battery as indicated in Table 25.

The committee also came to a consensus that all of the knowledge areas included in the current NTE Core Battery were suitable for use in assessing the competence of individuals to be certified as teachers.

Extent of Knowledge Desired at Entry

The External Advisory Committee also evaluated each of the 59 knowledge areas on the extent to which knowledge of each of these areas is desirable when a new teacher starts to work in the profession. This rating was needed both to ensure that the areas covered in a competency examination were

TABLE 24

Mean Ratings of External Advisory Committee Members of Importance of Added Knowledge Areas

KNOWLEDGE AREAS			JOB FACTORS					
Item No.	Description (Abbreviated)		I	II	III	IV	V	VI
88		Speaking	4.0	2.7	2.3	3.0	3.8	3.7
119	Teaching "Levels" (Content)	Early Childhood Education	2.2	1.5	2.3	2.7	2.5	1.8
120		Elementary Education	2.2	1.5	2.3	2.8	2.5	1.8
121		Secondary Education	2.2	1.5	2.3	2.8	2.5	1.8
122		Adult Education	2.0	1.5	2.0	2.5	2.5	1.8
123		Bilingual/Multicultural Education	2.8	1.7	2.3	3.0	2.7	1.8
124		Global Education	2.2	1.3	2.2	3.0	3.0	2.0
125		Reading/Language Arts Education	2.0	1.7	2.8	3.5	3.2	2.5
126		Special Education	2.0	1.8	2.7	3.2	2.8	2.2
127		Vocational and Career Education	2.0	1.5	2.7	3.2	3.2	2.8
128	Human Development	Lifespan Development	2.0	.7	1.2	1.2	1.5	2.0
129		Learning	3.2	1.5	2.7	3.2	3.3	3.7
130		Emotional and Social	3.3	1.5	2.7	3.2	3.3	3.7
131		Interpersonal Dynamics	3.3	1.8	2.5	3.2	3.3	3.8
132		Physical Development	3.0	1.3	2.3	1.5	2.2	2.8
133	Other Areas	Computer Application	.8	2.2	2.2	1.5	1.8	1.3
134		Tests and Measurement	1.5	1.8	3.3	2.2	2.3	3.2
135		Health and First Aid	1.3	1.7	1.0	.8	1.3	1.5
136	Professional Studies	Methodology	2.0	.8	2.5	3.2	3.3	3.2
137		History of Education	.5	.5	.5	.7	.7	.5
138		Curriculum	1.3	1.2	1.8	3.0	2.8	2.7
139		Philosophy of Education	.5	.6	1.0	1.2	.8	.5
140		Instructional Techniques	2.5	1.2	2.7	3.2	3.2	3.3
141		Classroom Management	3.3	1.3	2.0	3.3	3.3	2.7
142		Curriculum Design	2.2	1.8	2.2	3.0	3.0	3.0

Table 25

Recommendations of External Advisory Committee Concerning Incorporating Other Knowledge Areas into the NTE Core Battery

	Knowledge Areas	Recommendations
	Teaching "Level" (Content)	
119	Early Childhood Education	Combine with #117
120	Elementary Education	Combine with #110, #111
121	Secondary Education	Combine with #110, #111
122	Adult Education	Combine with #110, #111
123	Bilingual/Multicultural Education	Combine with #106
124	Global Education	Combine with #106
125	Reading/Language Arts Education	Combine with #112
126	Special Education	Combine with #114
127	Vocational and Career Education	Combine with #110, #111
	Human Development	
128	Lifespan Development	Combine with #117
129	Learning	Combine with #117
130	Emotional and Social	Combine with #117
131	Interpersonal Dynamics	Combine with #113
132	Physical Development	Combine with #117, #126
	Other Areas	
133	Computer Application	Combine with #110, #111
134	Tests and Measurement	Combine with #112
135	Health and First Aid	Combine with #113
	Professional Studies	
136	Methodology	Combine with #110, #111
138	Curriculum	Combine with #110
140	Instructional Techniques	Combine with #111
141	Classroom Management	Combine with #113
142	Curriculum Design	Combine with #111

relevant for beginning teachers and to identify those knowledge areas, if any, that could be eliminated from further consideration because they are either not necessary or because they are learned on the job. A rating form was prepared listing the 59 knowledge areas and containing the following rating scale. A copy of the form is contained in Appendix M*.

> EXTENT AT ENTRY INTO THE JOB: To what extent is knowledge of each of the content areas listed below necessary when a new teacher starts to work in the profession? Please circle the number that best describes your judgment.
>
> 0 Not necessary for a beginning teacher or is learned on the job
> 1 Some knowledge of this content area is necessary for a beginning teacher
> 2 A general knowledge of this content area is necessary for a beginning teacher
> 3 Specialized or detailed knowledge of this content area is necessary for a beginning teacher

A minimum rating standard of 1.0 or higher was selected by project staff and approved by the External Advisory Committee as indicating it was suitable to evaluate beginning teachers on a knowledge area. Fifty-seven (57) of the knowledge areas received mean ratings above the minimum value of 1.0 ("Some knowledge of this content area is necessary for a beginning teacher"). The two exceptions were History of education (#137) and Philosophy of education (#139). The knowledge areas generally rated highest in this respect, consistent with the other evidence obtained, were the communication skills and areas of professional education.

The reliability (intraclass correlation) for a single rater was .37. When this reliablity was "stepped-up" for the total sample of five panel members, the reliability was .75. Given the single-rater reliability of .37, if a standard of .90 were set as the desired level of reliability for the total panel of judges, then a panel of 15 committee members would be required.

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*Starred appendices are published separately.

Summary of Analysis of Knowledge Area Results

Fifty-nine (59) knowledge areas were rated by the sample of teachers and by the members of the External Advisory Committee. All were found to be important to the functioning of teachers and 57 of the 59 were linked both statistically and judgmentally to one or more job dimensions. Of 25 areas tentatively added to those covered by the NTE specifications, two areas not linked to any job dimension were History of education (#137) and Philosophy of education (#139). These same two areas were also judged as being unnecessary for a beginning teacher. As a result of these findings, these two knowledge areas were not recommended for inclusion in the NTE Core Battery.

The 34 knowledge areas in the current NTE Core Battery were judged to be necessary for beginning teachers, appropriate for use in certifying teachers, and linked to one or more job functions. The 22 additional knowledge areas included in the inventory were recommended by the External Advisory Committee for evaluation by the appropriate NTE Committee to determine the degree to which they are or should be included within subject areas currently assessed in the core battery. The Committee also recommended that one other knowledge area, Speaking, be considered for inclusion in local district or state assessments.

VII. DISCUSSION AND CONCLUSIONS

It will be recalled that this study was designed to answer a number of questions that were stated in Section I. The conclusions reached are summarized as answers to those questions.

The Teacher's Job

The first three questions involve sequential steps in defining the professional functions of teachers and they are, therefore, grouped together for response.

(1) Is there agreement among teachers and experts in the field of education that there exists a common set of core tasks or duties performed by job incumbents?

(2) Is there agreement among these teachers and experts that there is a subset of these core tasks or duties that is critical or important to the achievement of the goals or objectives of the job?

(3) Within this subset of important core tasks or duties, is there agreement among these teachers and experts that there is a further subset of tasks or duties that one should be able to perform at entry into a teaching position?

A series of 83 tasks of elementary and secondary school teachers were identified through information obtained from an extensive literature search, from interviews with over 100 teachers in three regions and by review and revision of draft task-lists by the members of the Internal, External and Local School District Advisory Committees. The consensus of the reviews indicated that all 83 tasks represented the core functions performed by teachers.

The list of tasks was distributed in inventory form and was rated by 1,839 teachers and 89 administrators in three regions on their importance, the extent of ability required at entry and their relationship to successful performance. All 83 tasks were judged to be important and desirable at entry into the field. The ratings also indicated that performance on each task was related to overall successful job performance. Although opportunity for additions to the task list was afforded, no significant new tasks were suggested as additions.

Principal component analysis of the importance rating of the tasks by a matched sample of 682 teachers identified six factors or dimensions of the job of teachers. This structure was demonstrated to be a relevant description of the important common functions of teachers in each of the three regions and for various subgroups of teachers.

On the basis of these results, project staff conclude that the six-factor structure represents a set of important core tasks or duties that one should be able to perform at entry into the teacher's job. The matched sample factor solution is thus considered suitable for use in documenting the job-relatedness of the knowledge areas in the NTE Core Battery.

The Knowledge Requirements of the Job

(4) Is there agreement among these teachers and experts on the knowledge areas that are important to performing the subset of important core tasks or duties that one should be able to perform at entry into a teaching position?

A total of 59 knowledge areas were identified and reviewed by the same methods followed in the task development and review process described above. Thirty-four (34) of these were knowledge areas currently covered in the NTE Core Battery. The 59 knowledge areas were also rated by 1,839 teachers and 89 administrators in three regions on their importance, their relationship to successful job performance and the cognitive level at which they were typically used in the job.

All 34 NTE Core Battery knowledge areas were rated by the teachers and administrators as important and related to overall successful job performance.

All of the 25 additional knowledge areas surveyed were also rated as important and related to overall successful job performance by the sample of teachers and administrators.

Project staff combined the linkages obtained from the statistical analysis and the ratings of the External Advisory Committee members to identify those linkages common to both methods. The results indicated that each of the 34 NTE Core Battery and 23 of the 25 additional knowledge areas were related to one or more of the six job factors. The knowledge areas that did not link were History of education (#137) and Philosophy of education (#139).

In summary, there was overall agreement among teachers and other experts that 57 of the 59 knowledge areas were important and linked to the performance of a subset of important core tasks or duties of teachers. The External Advisory Committee also judged that these same 57 knowledge areas were also required at entry into a teaching position. Furthermore, twenty-two of the twenty-three additional areas were considered by this committee as appropriate for incorporation in the domain of one or more of the existing NTE Core Battery areas. Speaking was the one knowledge area for which this was not feasible. It was recommended that it be considered for inclusion in local district or state assessments.

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*Starred appendices are not included in this report. The full appendices are published in a separate document titled Job Analysis of the Professional Functions of Teachers: Appendices. Princeton, N.J.: Educational Testing Service, 1985.

APPENDIX C

INVENTORY
OF THE
PROFESSIONAL FUNCTIONS
OF TEACHERS

INVENTORY OF THE PROFESSIONAL FUNCTIONS OF TEACHERS

Educational Testing Service
Center for Occupational and Professional Assessment
Princeton, New Jersey 08541

May 1984

INSTRUCTIONS FOR COMPLETING THE INVENTORY

PART I--INVENTORY OF TASKS

Educational Testing Service is attempting to describe and analyze the professional work of teachers. In order to identify the relevant and important parts of the teacher's position we are asking you to use this inventory to describe your work and to make some judgments about the tasks you perform.

The information about the job of teachers has been developed in cooperation with an advisory committee of knowledgeable educators and as a result of a number of interviews and observations of teachers in various school districts. The results of this work indicate there is great variety in the typical duties of teachers. We have attempted to reflect this diversity in the information contained in this inventory. Some or all of these duties should be applicable to your job. The instructions which follow describe how you can report what you actually do.

On the following pages you will find a list of teachers' tasks which have been grouped into clusters of related tasks. Preceding each set of tasks are statements describing the settings under which the specific tasks are grouped. You are asked to read each task carefully and to make some judgments about it. We are interested in your initial judgment of each task.

The five groups of tasks are:

I. Planning the Instructional Program and Selecting the Instructional Materials

II. Teaching-Implementing the Planned Instructional Program

III. Evaluating Student Learning and Instructional Effectiveness

IV. Supervising, Managing, Guiding and Counseling Students

V. Other Professional Duties

Using the Rating Scales

For each task on the following pages, you are to indicate your judgment as to:

IMPORTANCE: Regardless of the amount of time you spend, how important is it to YOUR professional functioning as a teacher that this task be carried out properly?

(0) Of no importance
(1) Of little importance
(2) Moderately important
(3) Very important
(4) Extremely important

EXTENT AT ENTRY INTO THE JOB: To what extent is the ability to perform this task necessary when a new teacher starts to work in the profession?

(0) Not necessary for a beginning teacher
(1) Not necessary--is learned on the job
(2) Desirable but not necessary
(3) Some degree is necessary, however performance should improve on the job
(4) Full competence is necessary for a beginning teacher

RELATIONSHIP: Do the most effective teachers perform this task more effectively than less effective teachers?

(0) Teachers do not perform this task
(1) Most teachers perform this task equally well
(2) Generally, the more effective teachers perform this task better than less effective teachers
(3) The most effective teachers consistently perform this task better than less effective teachers

The rating scales described above are presented at the top of the pages that follow.

Circle the number corresponding to your judgments in the spaces provided. The following example illustrates how the form might be filled out:

Setting: Planning the Instructional Program and Selecting the Instructional Materials

Task:	IMPORTANCE	EXTENT AT ENTRY	RELATIONSHIP
4. Analyze instructional objectives to determine appropriate instructional content, media and methods.	0 1 2 [✓ 3] 4	0 1 2 [✓ 3] 4	0 1 [✓ 2] 3

WE SUGGEST YOU READ ALL OF THE TASKS BEFORE MAKING ANY JUDGMENTS. THIS WILL GIVE YOU AN IDEA OF HOW THE TASKS ARE ORGANIZED.

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PART I--INVENTORY OF TASKS

Using the scales below, please circle the number in each column that best describes your judgment. Please rate every item.

IMPORTANCE

0 Of no importance
1 Of little importance
2 Moderately important
3 Very important
4 Extremely important

EXTENT AT ENTRY

0 Not necessary for a beginning teacher
1 Not necessary--is learned on the job
2 Desirable but not necessary
3 Some degree is necessary, however performance should improve on the job
4 Full competence is necessary for a beginning teacher

I. Planning the Instructional Program and Selecting the Instructional Materials

Teachers plan a program of instruction for a specific class that will achieve the instructional objectives appropriate to the established program goals, that will meet student needs and interests, and that will suit student capabilities.

	IMPORTANCE	EXTENT AT ENTRY	RELATIONSHIP
1. Translate and sequence the curriculum into specific instructional objectives and content specifications that will achieve the program goals....................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
2. Analyze student records, test scores, information from parents, other teachers and school records to determine current level of knowledge and readiness of students for lessons planned..................................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
3. Prepare assessment techniques (e.g., pretests, pre-instructional questions) to determine current level of student functioning....................................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
4. Analyze instructional objectives to determine appropriate instructional content, media and methods....	0 1 2 3 4	0 1 2 3 4	0 1 2 3
5. Specify lessons and experiences that best utilize the available time to instruct students....................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
6. Prepare written lesson plans specifying objectives, content and activities to be covered, sequence of instructional method to be used, materials and equipment needed, and standards of accomplishment for each lesson..	0 1 2 3 4	0 1 2 3 4	0 1 2 3
7. Prepare, write or outline instructional materials (e.g., lectures, classroom lessons or exercises, student workbooks, homework, computer software and/or other course materials).......................................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
8. Obtain and/or prepare instructional aids such as forms, charts, models, transparencies, etc., for use in class..	0 1 2 3 4	0 1 2 3 4	0 1 2 3

Using the scales below, please circle the number in each column that best describes your judgment.

RELATIONSHIP

0 Teachers do not perform this task
1 Most teachers perform this task equally well
2 Generally, the more effective teachers perform this task better than less effective teachers
3 The most effective teachers consistently perform this task better than less effective teachers

	IMPORTANCE	EXTENT AT ENTRY	RELATIONSHIP
I. Planning the Instructional Program and Selecting the Instructional Materials (cont.)			
9. Prepare materials for use in lessons (e.g., mix paint, set up experiments, put out athletic equipment, etc.)...	0 1 2 3 4	0 1 2 3 4	0 1 2 3
10. Prepare apparatus and make operational checks on machines and equipment used for instruction and learning..	0 1 2 3 4	0 1 2 3 4	0 1 2 3
11. Review and recommend basic texts, study guides, student workbooks, reference materials, supplementary reading and/or other learning materials........................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
12. Review and/or communicate plans with instructional leaders (e.g., coordinator) and/or other teachers to coordinate teaching plans and school activities.........	0 1 2 3 4	0 1 2 3 4	0 1 2 3
13. Plan for the evaluation of student needs and progress by means such as quizzes, tests, standardized examinations, surveys and performance or "hands-on" measures related to specific instructional objectives...................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
14. Design alternative objectives and alternative lessons, based on results of student assessments, to remedy learning deficiencies and to tailor the program to the needs of individual students.......................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
II. Teaching-Implementing the Planned Instructional Program			
Teachers instruct students in a variety of subject areas, use a variety of techniques and settings, appraise the results, and develop and assist students to achieve program objectives and goals.			
15. Give students an overview of lessons, state program goals and indicate importance of topics to orient students, to stimulate their interest, and to motivate learning.....................................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
16. Use information from assessment techniques or ask questions of students to assess readiness for lessons...	0 1 2 3 4	0 1 2 3 4	0 1 2 3

Using the scales below, please circle the number in each column that best describes your judgment.

IMPORTANCE	EXTENT AT ENTRY
0 Of no importance	0 Not necessary for a beginning teacher
1 Of little importance	1 Not necessary--is learned on the job
2 Moderately important	2 Desirable but not necessary
3 Very important	3 Some degree is necessary, however performance should improve on the job
4 Extremely important	4 Full competence is necessary for a beginning teacher

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	IMPORTANCE	EXTENT AT ENTRY	RELATIONSHIP
II. Teaching-Implementing the Planned Instructional Program (cont.)			
17. Evaluate student capabilities and group students with similar instructional needs............................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
18. Modify instruction to suit the needs of groups of students with similar instructional needs..............	0 1 2 3 4	0 1 2 3 4	0 1 2 3
19. Instruct students in order to impart knowledge of the established content and/or recent developments in a specific subject area..................................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
20. Instruct students of a single class or grade on the content of a variety of areas of subject matter.........	0 1 2 3 4	0 1 2 3 4	0 1 2 3
21. Encourage students to use a variety of critical thinking skills (e.g., recall, comprehension, application, analysis, synthesis, evaluation).......................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
22. Select and use a variety of teaching techniques in presenting lessons (e.g., learning centers, discovery method, independent study, small-group discussion, lecture)...	0 1 2 3 4	0 1 2 3 4	0 1 2 3
23. Provide individual assistance/instruction to students designed to meet individual needs......................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
24. Implement classroom programs for students with special needs based on predetermined diagnostic measures and prescriptive materials (IEP)............................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
25. Facilitate student learning and encourage effort by responding to observed behavior, asking and answering questions, and evaluating responses....................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
26. Monitor student responses to lessons, instructional materials, facilities, media, methods, and content used in teaching, and modify or recommend modification of instructional activities as necessary...............	0 1 2 3 4	0 1 2 3 4	0 1 2 3
27. Provide opportunities for students to apply what they have learned..	0 1 2 3 4	0 1 2 3 4	0 1 2 3

Using the scales below, please circle the number in each column that best describes your judgment.

RELATIONSHIP

0 Teachers do not perform this task
1 Most teachers perform this task equally well
2 Generally, the more effective teachers perform this task better than less effective teachers
3 The most effective teachers consistently perform this task better than less effective teachers

	IMPORTANCE	EXTENT AT ENTRY	RELATIONSHIP
II. Teaching-Implementing the Planned Instructional Program (cont.)			
28. Ensure compliance with safety rules and monitor the proper and safe operation of tools, devices, equipment and materials used by students........................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
29. Provide feedback to facilitate student learning.........	0 1 2 3 4	0 1 2 3 4	0 1 2 3
30. Summarize content covered in each lesson................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
31. Prepare and maintain displays of student work, bulletin board charts and posters, and other notices to enhance learning..	0 1 2 3 4	0 1 2 3 4	0 1 2 3
Teachers use a variety of approaches in presenting program content including:			
32. Basic instructional strategies (e.g., questioning, study groups, reinforcing learning).........................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
33. Laboratory or "hands-on" instruction (e.g., reading, language, math, science, home economics, vocational shop, etc.)...	0 1 2 3 4	0 1 2 3 4	0 1 2 3
34. Presentations (e.g., lectures, illustrated talks, demonstrations)......................................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
35. Group interaction techniques (e.g., small-group and large-group discussions, symposiums, panel discussions)...	0 1 2 3 4	0 1 2 3 4	0 1 2 3
36. Educational technology (e.g., filmstrips, slides, motion pictures, overhead projectors, educational television, video recorders, closed circuit TV, computer-assisted or computer-managed instruction).......................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
37. Visual aids (e.g., flip charts, chalk boards, exhibits, models and real objects)............................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
38. Community resources (e.g., resource persons, field trips)..	0 1 2 3 4	0 1 2 3 4	0 1 2 3

Using the scales below, please circle the number in each column that best describes your judgment.

IMPORTANCE

0 Of no importance
1 Of little importance
2 Moderately important
3 Very important
4 Extremely important

EXTENT AT ENTRY

0 Not necessary for a beginning teacher
1 Not necessary--is learned on the job
2 Desirable but not necessary
3 Some degree is necessary, however performance should improve on the job
4 Full competence is necessary for a beginning teacher

	IMPORTANCE	EXTENT AT ENTRY	RELATIONSHIP
II. Teaching-Implementing the Planned Instructional Program (cont.)			
39. Independent study (e.g., assignments, projects).........	0 1 2 3 4	0 1 2 3 4	0 1 2 3
40. Peer instruction by students (e.g., student presentations, students instructing other students, peer tutoring)..	0 1 2 3 4	0 1 2 3 4	0 1 2 3
III. Evaluating Student Learning and Instructional Effectiveness			
Teachers assess and report student progress toward cognitive and behavioral goals, and evaluate instructional effectiveness.			
41. Prepare and administer quizzes, tests and student exercises (e.g., contests, exhibits, projects) to direct student study, to measure student achievement and to evaluate instructional effectiveness....................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
42. Score, grade, record and give feedback on quizzes, tests, examinations, reports, projects, models, and other student work products..............................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
43. Evaluate student written work for completeness, correctness, and accurate use of grammar, punctuation, spelling and sentence structure................................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
44. Evaluate student English language skills (speaking, reading, writing)....................................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
45. Correct and remedy problems students exhibit in English language skills.......................................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
46. Assign, receive, correct, grade and return classroom assignments and homework.............................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
47. Establish and maintain records of individual student achievement on specific elements of content or specific learning objectives..................................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
48. Incorporate test or evaluation scores into grades, record results, prepare report cards and interpret information to students, parents and/or guardians.......	0 1 2 3 4	0 1 2 3 4	0 1 2 3

Using the scales below, please circle the number in each column that best describes your judgment.

RELATIONSHIP

0 Teachers do not perform this task
1 Most teachers perform this task equally well
2 Generally, the more effective teachers perform this task better than less effective teachers
3 The most effective teachers consistently perform this task better than less effective teachers

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	IMPORTANCE	EXTENT AT ENTRY	RELATIONSHIP
III. Evaluating Student Learning and Instructional Effectiveness (cont.)			
49. Administer and monitor standardized, district and/or statewide tests..	0 1 2 3 4	0 1 2 3 4	0 1 2 3
50. Interpret results of standardized, district and/or statewide tests to students, parents and/or guardians...	0 1 2 3 4	0 1 2 3 4	0 1 2 3
51. Analyze student achievement in class, using tests and evaluative information, to identify individual strengths and learning needs....................................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
52. Establish and maintain student records (e.g., attendance, quiz scores, test scores, class work, projects completed, homework received)..................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
53. Identify and refer students experiencing health, physical or learning problems to appropriate school staff and follow-up as appropriate......................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
54. Participate in interviews and exchange information, in person or by telephone, with students, parents or guardians, school staff and relevant others to ensure proper development, care and custody of students........	0 1 2 3 4	0 1 2 3 4	0 1 2 3
55. Analyze test scores and evaluation information to assess the instructional effectivensss of specific lessons and the need for additional or alternative instruction......	0 1 2 3 4	0 1 2 3 4	0 1 2 3
IV. Supervising, Managing, Guiding and Counseling Students			
Teachers supervise and manage students to ensure the safe and orderly conduct of class and school activities, and to assist and counsel students to enhance their academic, social and personal development.			
56. Establish classroom rules and procedures and communicate these to students and when appropriate to parents.......	0 1 2 3 4	0 1 2 3 4	0 1 2 3
57. Communicate school rules and procedures to students and when appropriate to parents.............................	0 1 2 3 4	0 1 2 3 4	0 1 2 3

Using the scales below, please circle the number in each column that best describes your judgment.

IMPORTANCE

0 Of no importance
1 Of little importance
2 Moderately important
3 Very important
4 Extremely important

EXTENT AT ENTRY

0 Not necessary for a beginning teacher
1 Not necessary--is learned on the job
2 Desirable but not necessary
3 Some degree is necessary, however performance should improve on the job
4 Full competence is necessary for a beginning teacher

	IMPORTANCE	EXTENT AT ENTRY	RELATIONSHIP
IV. Supervising, Managing, Guiding and Counseling Students (cont.)			
58. Maintain order in class and as students enter and leave class, by monitoring individual and group behavior......	0 1 2 3 4	0 1 2 3 4	0 1 2 3
59. Establish, communicate and show by example standards of social behavior (e.g., respect for others, politeness) to assist in the development of social skills of students....................................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
60. Communicate and show by example to students multi-cultural and sex equity awareness, appreciation and understanding..	0 1 2 3 4	0 1 2 3 4	0 1 2 3
61. Continuously monitor student in-class behavior (e.g., by positioning, eye contact, moving about classroom) to encourage student effort, to observe progress, and to maintain classroom order................................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
62. Encourage, praise and support desired student behavior: ignore, correct, discourage, document or discipline student misbehavior..........................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
63. Monitor classroom activities and assign or reassign students to seats or workplaces that effectively facilitate on-task behavior............................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
64. Interact with students in a supportive and respectful manner to help them to pursue their academic, career, social and personal goals..............................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
65. Exchange information with parents, guardians or other teachers (or school personnel) to gain an understanding of student behavior and to facilitate student development..	0 1 2 3 4	0 1 2 3 4	0 1 2 3
66. Select, direct, and/or reinforce students appointed to special assignments such as class monitor, chalkboard "housekeeper", team captain, etc.......................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
67. Monitor student behavior outside of the classroom in such locations as lunch room, assembly hall, hallway, playground, etc., to ensure orderly and safe conduct....	0 1 2 3 4	0 1 2 3 4	0 1 2 3

Using the scales below, please circle the number in each column that best describes your judgment.

RELATIONSHIP

0 Teachers do not perform this task
1 Most teachers perform this task equally well
2 Generally, the more effective teachers perform this task better than less effective teachers
3 The most effective teachers consistently perform this task better than less effective teachers

	IMPORTANCE	EXTENT AT ENTRY	RELATIONSHIP
IV. Supervising, Managing, Guiding and Counseling Students (cont.)			
68. Escort and supervise students in assemblies, pep rallies, fire drills, emergency procedures, field trips, etc	0 1 2 3 4	0 1 2 3 4	0 1 2 3
69. Manage classroom time effectively in order to maintain continuous on-task behavior by students	0 1 2 3 4	0 1 2 3 4	0 1 2 3
70. Deal with (manage) student misbehavior	0 1 2 3 4	0 1 2 3 4	0 1 2 3
71. Prepare reports or letters (e.g., letters of recommendation, letters to social service agencies) describing student behavior and/or progress	0 1 2 3 4	0 1 2 3 4	0 1 2 3
72. Supervise or guide the work of other adults in the class (e.g., teacher aides, volunteers)	0 1 2 3 4	0 1 2 3 4	0 1 2 3
73. Recognize student health needs and refer problems to others as necessary	0 1 2 3 4	0 1 2 3 4	0 1 2 3
V. Other Professional Duties			
Teachers have other professional duties that assist student development, add to their own qualifications and abilities, and promote the effective functioning of the school program.			
74. Take inventory, store, distribute and collect books, materials and equipment used in class	0 1 2 3 4	0 1 2 3 4	0 1 2 3
75. Request additional materials and supplies as needed	0 1 2 3 4	0 1 2 3 4	0 1 2 3
76. Complete reports and maintain records of equipment and other school property received for issue to and use by students	0 1 2 3 4	0 1 2 3 4	0 1 2 3
77. Monitor classroom temperature, lighting and ventilation and perform other duties to ensure that facilities are comfortable and ready to use	0 1 2 3 4	0 1 2 3 4	0 1 2 3
78. Report acts of vandalism, and defaced, damaged or missing school property	0 1 2 3 4	0 1 2 3 4	0 1 2 3

Using the scales below, please circle the number in each column that best describes your judgment.

IMPORTANCE

0 Of no importance
1 Of little importance
2 Moderately important
3 Very important
4 Extremely important

EXTENT AT ENTRY

0 Not necessary for a beginning teacher
1 Not necessary--is learned on the job
2 Desirable but not necessary
3 Some degree is necessary, however performance should improve on the job
4 Full competence is necessary for a beginning teacher

	IMPORTANCE	EXTENT AT ENTRY	RELATIONSHIP
V. Other Professional Duties (cont.)			
79. Prepare, duplicate and/or file records, forms, quizzes or other materials to be used for teaching or learning..	0 1 2 3 4	0 1 2 3 4	0 1 2 3
80. Orient, observe, assist and counsel beginning teachers or teachers in training..................................	0 1 2 3 4	0 1 2 3 4	0 1 2 3
81. Keep abreast of developments in education and subject specialty by reading professional publications, participating in professional organizations, in-service programs, further education, attending professional conventions, etc..	0 1 2 3 4	0 1 2 3 4	0 1 2 3
82. Collaborate with colleagues to coordinate and expedite school routines, curriculum, teaching methods, etc......	0 1 2 3 4	0 1 2 3 4	0 1 2 3
83. Serve on various school and/or district-wide committees (e.g., discipline committee, curriculum council, faculty council)..	0 1 2 3 4	0 1 2 3 4	0 1 2 3

If there are other important duties that you perform that are not listed here, please list them on the last page of this questionnaire.

Using the scales below, please circle the number in each column that best describes your judgment.

RELATIONSHIP

0 Teachers do not perform this task
1 Most teachers perform this task equally well
2 Generally, the more effective teachers perform this task better than less effective teachers
3 The most effective teachers consistently perform this task better than less effective teachers

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PLEASE TURN TO NEXT PAGE

PART II--KNOWLEDGE AREAS

This section contains a list of broad categories of knowledge that teachers may have to be familiar with. The list ranges from broad skills such as reading and listening to content areas in which specific knowledge may be required. The headings have been provided as a matter of convenience, and some items could be grouped under several of the headings. For this reason, please read each item, regardless of the heading under which it appears, and respond in terms of your own teaching experience.

Rate each of the items listed in this part of the inventory using the following three scales:

IMPORTANCE: Regardless of the amount of time you spend using this knowledge or skill, how important is it to your job?

(0) Of no importance
(1) Of little importance
(2) Moderately important
(3) Very important
(4) Extremely important

RELATIONSHIP: Do the most effective teachers have more of this knowledge or skill than less effective teachers?

(0) Teachers do not need this knowledge or skill
(1) Most teachers are equally knowledgeable or skillful in this area
(2) Generally, the more effective teachers have more knowledge or skill in this area than less effective teachers
(3) The most effective teachers consistently have more knowledge or skill in this area than less effective teachers

LEVEL OF TYPICAL USE: At which of the following levels is this knowledge or skill area typically used by you in the course of your work?

(0) I do not use this knowledge or skill
(1) Requires knowledge of the subject matter or skill area and the ability to interpret this knowledge to others
(2) Requires the ability to apply knowledge of the subject matter or skill area to new or changing situations as they occur
(3) Requires the ability to analyze information coming in and to distinguish facts from assumptions before acting
(4) Requires the ability to put ideas and a number of pieces of information together to arrive at solutions to problems and to evaluate their usefulness

Using the scales below, please circle the number in each column that best describes your judgment.

IMPORTANCE

0 Of no importance
1 Of little importance
2 Moderately important
3 Very important
4 Extremely important

RELATIONSHIP

0 Teachers do not need this knowledge
1 Most teachers are equally knowledgeable in this area
2 Generally, the more effective teachers have more knowledge in this area than the less effective teachers
3 The most effective teachers consistently have more knowledge in this area than less effective teachers

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	IMPORTANCE	RELATIONSHIP	LEVEL OF TYPICAL USE
Communications Skills			
84. Listening--comprehending oral messages quickly and accurately	0 1 2 3 4	0 1 2 3	0 1 2 3 4
85. Reading--understanding, analyzing and evaluating written materials	0 1 2 3 4	0 1 2 3	0 1 2 3 4
86. Writing--evaluating the correctness and effectiveness of standard written English	0 1 2 3 4	0 1 2 3	0 1 2 3 4
87. Composition--organizing thoughts in writing with reasonable care and precision	0 1 2 3 4	0 1 2 3	0 1 2 3 4
88. Speaking--talking in a clear, distinct, and understandable manner	0 1 2 3 4	0 1 2 3	0 1 2 3 4
Literature and Fine Arts (Graphic, Plastic, Music, Performing)			
89. Recognizing basic elements and components of works of literature and fine arts	0 1 2 3 4	0 1 2 3	0 1 2 3 4
90. Analyzing and interpreting works of literature and the fine arts	0 1 2 3 4	0 1 2 3	0 1 2 3 4
91. Relating works of literature and the fine arts to one another and to their social/historical context	0 1 2 3 4	0 1 2 3	0 1 2 3 4
Mathematics			
92. Recognizing and using basic mathematical relationships	0 1 2 3 4	0 1 2 3	0 1 2 3 4
93. Understanding the mathematical basis of measuring	0 1 2 3 4	0 1 2 3	0 1 2 3 4
94. Interpreting graphic, symbolic or verbal-mathematical material	0 1 2 3 4	0 1 2 3	0 1 2 3 4
Science			
95. Understanding energy relationships in living and non-living contexts (sources, transfer, changes, conservation)	0 1 2 3 4	0 1 2 3	0 1 2 3 4

Using the scales below, please circle the number in each column that best describes your judgment.

LEVEL OF TYPICAL USE

(0) I do not use this knowledge or skill
(1) Requires knowledge of the subject matter or skill area and the ability to interpret this knowledge to others
(2) Requires the ability to apply knowledge of the subject matter or skill area to new or changing situations as they occur
(3) Requires the ability to analyze information coming in and to distinguish facts from assumptions before acting
(4) Requires the ability to put ideas and a number of pieces of information together to arrive at solutions to problems and to evaluate their usefulness

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	IMPORTANCE	RELATIONSHIP	LEVEL OF TYPICAL USE
Science (cont.)			
96. Understanding the functions of living things	0 1 2 3 4	0 1 2 3	0 1 2 3 4
97. Understanding classification systems of organisms: variety among organisms--processes that have led to changes	0 1 2 3 4	0 1 2 3	0 1 2 3 4
98. Relating living organisms to the environment	0 1 2 3 4	0 1 2 3	0 1 2 3 4
99. Understanding the earth: its origins and components	0 1 2 3 4	0 1 2 3	0 1 2 3 4
100. Understanding matter: combination of atoms; properties of substances	0 1 2 3 4	0 1 2 3	0 1 2 3 4
101. Understanding forces that act on matter (e.g., gravity, electromagnetic, nuclear)	0 1 2 3 4	0 1 2 3	0 1 2 3 4
102. Understanding the scientific method: reasoning, organization of information, principles	0 1 2 3 4	0 1 2 3	0 1 2 3 4
103. Assessment of the role of science in maintaining important human activities (e.g., nutrition, promoting health, safety, prevention of illness)	0 1 2 3 4	0 1 2 3	0 1 2 3 4
Social Studies			
104. U.S. history and culture--major U.S. historical and cultural events and movements; political institutions and values	0 1 2 3 4	0 1 2 3	0 1 2 3 4
105. Understanding the characteristics of societies and cultures	0 1 2 3 4	0 1 2 3	0 1 2 3 4
106. Understanding the relationships between culture and the individual	0 1 2 3 4	0 1 2 3	0 1 2 3 4
107. Understanding economic concepts and processes	0 1 2 3 4	0 1 2 3	0 1 2 3 4
108. Understanding geography and characteristics of human cultures and settlement	0 1 2 3 4	0 1 2 3	0 1 2 3 4
109. Understanding social science methodologies, tools and data resources	0 1 2 3 4	0 1 2 3	0 1 2 3 4

Using the scales below, please circle the number in each column that best describes your judgment.

IMPORTANCE	RELATIONSHIP
0 Of no importance	0 Teachers do not need this knowledge
1 Of little importance	1 Most teachers are equally knowledgeable in this area
2 Moderately important	2 Generally, the more effective teachers have more knowledge in this area than the less effective teachers
3 Very important	3 The most effective teachers consistently have more knowledge in this area than less effective teachers
4 Extremely important	

	IMPORTANCE	RELATIONSHIP	LEVEL OF TYPICAL USE
Professional Education			
110. Planning: setting instructional goals; diagnosing student needs; identifying resources; designing instructional activities	0 1 2 3 4	0 1 2 3	0 1 2 3 4
111. Implementing plans: creating conditions for effective learning; implementing instructional design	0 1 2 3 4	0 1 2 3	0 1 2 3 4
112. Evaluating: student achievement, programs	0 1 2 3 4	0 1 2 3	0 1 2 3 4
113. Interacting with students, colleagues, parents and the community	0 1 2 3 4	0 1 2 3	0 1 2 3 4
114. State and federal laws, regulations and policies affecting education (e.g., policies related to race, sex, language and handicaps)	0 1 2 3 4	0 1 2 3	0 1 2 3 4
115. Constitutional rights of students	0 1 2 3 4	0 1 2 3	0 1 2 3 4
116. Influences on teachers arising outside the classroom (e.g., district policies, community expectations, financial support of education)	0 1 2 3 4	0 1 2 3	0 1 2 3 4
117. Influences on students arising outside the classroom (e.g., culture, race, sex roles, community setting)	0 1 2 3 4	0 1 2 3	0 1 2 3 4
118. Characteristics of the teaching profession: professional organizations, teachers' rights and responsibilities	0 1 2 3 4	0 1 2 3	0 1 2 3 4
Principles and Practices of Teaching at Various Educational Levels			
119. Early childhood education	0 1 2 3 4	0 1 2 3	0 1 2 3 4
120. Elementary education	0 1 2 3 4	0 1 2 3	0 1 2 3 4
121. Secondary education	0 1 2 3 4	0 1 2 3	0 1 2 3 4
122. Adult and continuing education	0 1 2 3 4	0 1 2 3	0 1 2 3 4

Using the scales below, please circle the number in each column that best describes your judgment.

LEVEL OF TYPICAL USE

(0) I do not use this knowledge or skill
(1) Requires knowledge of the subject matter or skill area and the ability to interpret this knowledge to others
(2) Requires the ability to apply knowledge of the subject matter or skill area to new or changing situations as they occur
(3) Requires the ability to analyze information coming in and to distinguish facts from assumptions before acting
(4) Requires the ability to put ideas and a number of pieces of information together to arrive at solutions to problems and to evaluate their usefulness

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	IMPORTANCE	RELATIONSHIP	LEVEL OF TYPICAL USE
Principles and Practices Utilized in Various Educational Areas			
123. Bilingual/multicultural education	0 1 2 3 4	0 1 2 3	0 1 2 3 4
124. Global education	0 1 2 3 4	0 1 2 3	0 1 2 3 4
125. Reading/language arts education	0 1 2 3 4	0 1 2 3	0 1 2 3 4
126. Special education	0 1 2 3 4	0 1 2 3	0 1 2 3 4
127. Vocational and career education	0 1 2 3 4	0 1 2 3	0 1 2 3 4
Human Development and Interaction			
128. Lifespan development	0 1 2 3 4	0 1 2 3	0 1 2 3 4
129. Learning and cognitive development	0 1 2 3 4	0 1 2 3	0 1 2 3 4
130. Emotional and social development (e.g., including exceptionality)	0 1 2 3 4	0 1 2 3	0 1 2 3 4
131. Interpersonal relations and group dynamics	0 1 2 3 4	0 1 2 3	0 1 2 3 4
132. Physical development (including exceptionality)	0 1 2 3 4	0 1 2 3	0 1 2 3 4
Other Areas			
133. Educational applications of computers	0 1 2 3 4	0 1 2 3	0 1 2 3 4
134. Tests and measurement	0 1 2 3 4	0 1 2 3	0 1 2 3 4
135. Health and first aid	0 1 2 3 4	0 1 2 3	0 1 2 3 4

Using the scales below, please circle the number in each column that best describes your judgment.

IMPORTANCE

0 Of no importance
1 Of little importance
2 Moderately important
3 Very important
4 Extremely important

RELATIONSHIP

0 Teachers do not need this knowledge
1 Most teachers are equally knowledgeable in this area
2 Generally, the more effective teachers have more knowledge in this area than the less effective teachers
3 The most effective teachers consistently have more knowledge in this area than less effective teachers

LEVEL OF TYPICAL USE

(0) I do not use this knowledge or skill
(1) Requires knowledge of the subject matter or skill area and the ability to interpret this knowledge to others
(2) Requires the ability to apply knowledge of the subject matter or area to new or changing situations as they occur
(3) Requires the ability to analyze information coming in and to distinguish facts from assumptions before acting
(4) Requires the ability to put ideas and a number of pieces of information together to arrive at solutions to problems and to evaluate their usefulness

Professional Studies	IMPORTANCE	RELATIONSHIP	LEVEL OF TYPICAL USE
136. Methodology	0 1 2 3 4	0 1 2 3	0 1 2 3 4
137. History of education	0 1 2 3 4	0 1 2 3	0 1 2 3 4
138. Curriculum	0 1 2 3 4	0 1 2 3	0 1 2 3 4
139. Philosophy of education	0 1 2 3 4	0 1 2 3	0 1 2 3 4
140. Instructional techniques	0 1 2 3 4	0 1 2 3	0 1 2 3 4
141. Classroom management	0 1 2 3 4	0 1 2 3	0 1 2 3 4
142. Planning and designing curricula	0 1 2 3 4	0 1 2 3	0 1 2 3 4

Demographic Information

Name of School ______________________________

Please answer questions 143-152 by circling the number that most closely describes you or your professional activities.

143. In which district is your school located?

   1. Brentwood Union, CA
   2. Manteca Unified, CA
   3. Oakdale Union, CA
   4. Riverbank Elementary, CA
   5. Dougherty County, GA
   6. Jersey City Public Schools, NJ

144. What is your age?

   1. Under 25
   2. 25 - 34
   3. 35 - 44
   4. 45 - 54
   5. 55 - 64
   6. 65 or over

145. What is your sex?

   1. Female
   2. Male

146. Which of the following best describes your racial/ethnic background?

   1. American Indian/Alaskan native
   2. Asian or Pacific Islander
   3. Black (non-Hispanic)
   4. Hispanic
   5. White (non-Hispanic)
   6. Other

147. What is the highest professional degree you hold?

   1. Less than Bachelor's Degree
   2. Bachelor's Degree
   3. Master's Degree
   4. Doctorate

148. Which of the following best describes your current status?

   1. Temporary substitute (assigned on a daily basis)
   2. Permanent substitute (assigned on a longer term basis)
   3. Regular teacher (not a substitute)
   4. Assistant Principal
   5. Principal
   6. Other (please specify) ______________________________

149. How many years, including the current school year, have you been teaching?

1. Less than a year
2. 1 - 2 years
3. 3 - 5 years
4. 6 - 10 years
5. 11 - 15 years
6. 16 - 20 years
7. 21 or more years

150. What grade(s) are you currently teaching? (Circle all that apply).

1
2
3
4
5
6
7
8
9
10
11
12
[13] Preschool
[14] Kindergarten
[15] Adult
[16] Other (please explain) ____________________

151. Which of the following areas best describes your current teaching assignment? (Mark only one category.)

1. Preschool or kindergarten subjects or activities
2. Various elementary school level subjects
3. Special education for retarded, handicapped, disabled or other exceptional student subjects
4. Arts and culture: e.g., art, music, dance, etc.
5. Language arts and communication: e.g., English, foreign language, speech, literature, etc.
6. Quantitative methods: e.g., arithmetic, mathematics, statistics, computer science, logic, etc.
7. Physical and biological sciences: e.g., general science, biology, physics, chemistry, geology, etc.
8. Social sciences: e.g., social studies, psychology, sociology, economics, society and its cultures, etc.
9. History and government: e.g., history, government, management, etc.
10. Life and living: e.g., home economics, agriculture, commerce, business, military, etc.
11. Vocational/Technical/Industrial: technology, shop, repair, craft skills, etc.
12. Health and physical education
13. Other (please specify) ____________________

152. Please indicate the number of students in your class. If you teach more than one class, indicate average class size.

____

TASKS

Please use this space to list important additional tasks not included in the questionnaire.

KNOWLEDGE AREAS

Please use this space to list any important additional knowledge areas not covered in the questionnaire.

Thank you for your cooperation. Please place the questionnaire in the envelope provided, sealed, and return it to your principal.

APPENDIX F

PERCENTAGE OF ELEMENTARY AND SECONDARY TEACHERS IN EACH REGION PERFORMING EACH TASK AND MEAN RATINGS OF JOB TASKS BY TEACHERS AND BY ADMINISTRATORS

APPENDIX F

PERCENTAGE OF ELEMENTARY AND SECONDARY TEACHERS IN EACH REGION PERFORMING EACH TASK

(e.g., Rated Above Zero on the Relationship Scale; Percentages Rounded)

	CALIFORNIA		GEORGIA		NEW JERSEY	
	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary
1	93	99	97	99	98	96
2	100	81	98	93	97	90
3	97	94	96	97	96	94
4	96	97	99	99	97	97
5	99	100	100	100	98	100
6	82	94	99	99	96	99
7	94	98	95	99	95	97
8	100	99	99	100	99	96
9	100	98	96	99	97	98
10	82	98	87	93	86	93
11	99	98	94	97	91	91
12	97	98	97	98	91	90
13	100	98	99	100	100	99
14	99	97	98	98	99	97
15	97	100	98	99	97	99
16	98	96	99	98	98	96
17	100	91	98	93	99	90
18	100	99	100	100	99	97
19	98	99	100	100	99	98
20	100	95	97	87	98	94
21	100	99	99	99	99	96
22	100	98	100	100	99	97
23	100	99	99	99	98	96
24	97	87	95	93	95	87
25	100	100	100	100	99	99
26	99	99	99	99	98	97
27	100	99	100	100	99	98
28	94	98	98	98	96	98
29	100	100	100	100	99	99
30	99	99	100	100	99	99
31	99	98	99	99	99	94
32	100	100	100	100	99	99
33	100	100	99	100	98	99
34	99	100	98	100	98	100
35	98	97	98	100	96	97
36	100	99	99	100	98	98
37	100	100	100	100	99	100
38	98	99	98	98	97	94
39	98	97	99	98	98	95
40	95	93	94	91	94	91
41	100	100	100	100	100	99
42	100	99	100	99	100	99

APPENDIX F

PERCENTAGE OF ELEMENTARY AND SECONDARY TEACHERS IN EACH REGION PERFORMING EACH TASK (cont.)

(e.g., Rated Above Zero on the Relationship Scale;
Percentages Rounded)

	CALIFORNIA		GEORGIA		NEW JERSEY	
	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary
43	99	99	100	100	100	99
44	98	99	99	100	99	99
45	98	99	99	99	100	99
46	100	99	100	100	99	99
47	99	97	99	99	100	98
48	100	100	100	100	100	98
49	99	81	99	96	98	93
50	92	69	95	91	97	84
51	100	95	99	98	100	97
52	100	99	100	98	100	99
53	100	97	99	98	94	97
54	98	94	99	98	97	95
55	95	99	99	97	99	96
56	100	100	100	100	99	99
57	100	99	99	98	99	99
58	100	100	100	99	100	99
59	100	99	99	99	99	99
60	100	98	99	95	98	98
61	100	100	99	98	99	99
62	100	100	100	100	99	99
63	100	100	100	100	99	99
64	100	99	100	100	99	100
65	100	99	99	98	99	98
66	100	93	99	93	98	92
67	96	99	99	100	98	94
68	100	97	98	97	100	98
69	100	100	100	99	100	99
70	100	100	99	98	100	99
71	88	94	94	93	95	94
72	95	95	96	92	94	84
73	100	99	99	100	100	96
74	95	99	98	99	98	95
75	99	100	100	99	99	99
76	95	98	97	99	97	92
77	94	94	90	87	91	89
78	99	99	97	98	98	94
79	100	98	99	99	99	99
80	92	87	91	93	90	89
81	100	95	99	97	98	96
82	100	81	98	97	97	94
83	99	86	98	98	93	91
N =	90	90	387	124	732	167

MEAN RATINGS BY TEACHERS
OF IMPORTANCE BY TASKS

IMPORT. MEANS & ST.DEV

TOTAL SAMPLE	N	SUM	SUM**2	MEAN	VAR(N)	SD(N)	SD(N-1)
1	1819	5827.0000	19757.0000	3.2034	0.5996	0.7744	0.7746
2	1817	5498.0000	18030.0000	3.0259	0.7671	0.8758	0.8761
3	1805	5398.0000	17568.0000	2.9906	0.7894	0.8885	0.8887
4	1785	5395.0000	17517.0000	3.0224	0.6785	0.8237	0.8239
5	1788	5766.0000	19690.0000	3.2248	0.6128	0.7828	0.7830
6	1823	5314.0000	17374.0000	2.9150	1.0334	1.0165	1.0168
7	1810	5094.0000	16030.0000	2.8144	0.9357	0.9673	0.9676
8	1809	5195.0000	16181.0000	2.8718	0.6978	0.8353	0.8356
9	1822	5182.0000	16458.0000	2.8441	0.9439	0.9715	0.9718
10	1807	4609.0000	13939.0000	2.5506	1.2081	1.0992	1.0995
11	1813	5275.0000	16905.0000	2.9095	0.8589	0.9268	0.9270
12	1812	4898.0000	14882.0000	2.7031	0.9063	0.9520	0.9523
13	1816	6131.0000	21677.0000	3.3761	0.5386	0.7339	0.7341
14	1812	5903.0000	20359.0000	3.2577	0.6229	0.7892	0.7894
15	1813	5495.0000	18157.0000	3.0309	0.8286	0.9103	0.9105
16	1805	5216.0000	16408.0000	2.8898	0.7396	0.8600	0.8603
17	1823	5736.0000	19256.0000	3.1465	0.6626	0.8140	0.8142
18	1820	5981.0000	20637.0000	3.2863	0.5395	0.7345	0.7347
19	1807	5702.0000	19044.0000	3.1555	0.5818	0.7628	0.7630
20	1790	5446.0000	17942.0000	3.0425	0.7669	0.8757	0.8760
21	1819	6357.0000	23031.0000	3.4948	0.4479	0.6692	0.6694
22	1809	5908.0000	20364.0000	3.2659	0.5910	0.7688	0.7690
23	1808	6101.0000	21503.0000	3.3744	0.5064	0.7116	0.7118
24	1801	5454.0000	17970.0000	3.0283	0.8071	0.8984	0.8986
25	1810	5967.0000	20541.0000	3.2967	0.4805	0.6932	0.6934
26	1809	5602.0000	18484.0000	3.0967	0.6280	0.7925	0.7927
27	1818	6381.0000	23131.0000	3.5099	0.4039	0.6355	0.6357
28	1814	6137.0000	22175.0000	3.3831	0.7788	0.8825	0.8827
29	1805	6062.0000	21246.0000	3.3584	0.4915	0.7010	0.7012
30	1796	5655.0000	18923.0000	3.1487	0.6221	0.7887	0.7890
31	1814	5506.0000	18228.0000	3.0353	0.8356	0.9141	0.9144
32	1818	5846.0000	19744.0000	3.2156	0.5223	0.7227	0.7229
33	1802	5728.0000	19314.0000	3.1787	0.6140	0.7836	0.7838
34	1806	5415.0000	17437.0000	2.9983	0.6650	0.8155	0.8157
35	1808	4884.0000	14680.0000	2.7013	0.8223	0.9068	0.9071
36	1814	5352.0000	17054.0000	2.9504	0.6965	0.8346	0.8348
37	1811	5636.0000	18712.0000	3.1121	0.6473	0.8045	0.8048
38	1812	4842.0000	14378.0000	2.6722	0.7943	0.8912	0.8915
39	1807	4899.0000	14639.0000	2.7111	0.7511	0.8667	0.8669
40	1805	4379.0000	12091.0000	2.4260	0.8130	0.9016	0.9019
41	1812	6061.0000	21199.0000	3.3449	0.5107	0.7146	0.7148
42	1806	6187.0000	22031.0000	3.4258	0.4627	0.6802	0.6804
43	1813	6315.0000	22857.0000	3.4832	0.4748	0.6890	0.6892
44	1803	6290.0000	22744.0000	3.4886	0.4717	0.6868	0.6870
45	1803	6224.0000	22370.0000	3.4520	0.4906	0.7004	0.7006
46	1803	6166.0000	21998.0000	3.4199	0.5054	0.7109	0.7111
47	1809	5973.0000	20719.0000	3.3018	0.5512	0.7425	0.7427
48	1800	6270.0000	22674.0000	3.4833	0.4631	0.6805	0.6807
49	1810	4864.0000	15012.0000	2.6873	1.0724	1.0356	1.0358
50	1796	4923.0000	15417.0000	2.7411	1.0705	1.0346	1.0349
51	1801	5937.0000	20579.0000	3.2965	0.5595	0.7480	0.7482
52	1802	6147.0000	21919.0000	3.4112	0.5274	0.7262	0.7264
53	1802	6073.0000	21521.0000	3.3701	0.5850	0.7648	0.7650
54	1800	5604.0000	18744.0000	3.1133	0.7205	0.8488	0.8491
55	1792	5612.0000	18778.0000	3.1317	0.6713	0.8193	0.8195
56	1804	6591.0000	24729.0000	3.6535	0.3595	0.5996	0.5997
57	1799	6497.0000	24149.0000	3.6115	0.4088	0.6394	0.6395
58	1803	6514.0000	24228.0000	3.6129	0.3848	0.6203	0.6205
59	1801	6449.0000	23801.0000	3.5808	0.3934	0.6272	0.6274
60	1796	5746.0000	19618.0000	3.1993	0.6874	0.8291	0.8293
61	1797	6329.0000	23119.0000	3.5220	0.4610	0.6790	0.6791
62	1792	6469.0000	24037.0000	3.6099	0.3819	0.6180	0.6181
63	1791	6087.0000	21633.0000	3.3987	0.5278	0.7265	0.7267
64	1793	6228.0000	22472.0000	3.4735	0.4679	0.6841	0.6842
65	1792	5985.0000	20949.0000	3.3398	0.5357	0.7319	0.7321
66	1790	4896.0000	15140.0000	2.7352	1.0047	1.0024	1.0026
67	1792	5491.0000	18397.0000	3.0642	0.8770	0.9365	0.9368
68	1791	5657.0000	19355.0000	3.1586	0.8302	0.9112	0.9114
69	1792	6281.0000	22743.0000	3.5050	0.4062	0.6374	0.6375
70	1781	6449.0000	24009.0000	3.6210	0.3690	0.6074	0.6076
71	1778	4973.0000	15943.0000	2.7970	0.9188	0.9586	0.9588
72	1766	4807.0000	15095.0000	2.7220	1.1384	1.0670	1.0673
73	1779	5741.0000	19639.0000	3.2271	0.6252	0.7907	0.7909
74	1788	4479.0000	13057.0000	2.5050	1.0274	1.0136	1.0139
75	1773	5038.0000	15740.0000	2.8415	0.8034	0.8963	0.8966
76	1786	4775.0000	14469.0000	2.6736	0.9534	0.9764	0.9767
77	1778	4714.0000	14324.0000	2.6513	1.0269	1.0134	1.0136
78	1782	5276.0000	17194.0000	2.9607	0.8829	0.9396	0.9399
79	1804	5257.0000	16685.0000	2.9141	0.7570	0.8701	0.8703
80	1786	5039.0000	15961.0000	2.8214	0.9765	0.9882	0.9885
81	1798	5531.0000	18283.0000	3.0762	0.7055	0.8400	0.8402
82	1791	5405.0000	17543.0000	3.0179	0.6876	0.8292	0.8294
83	1797	4428.0000	12626.0000	2.4641	0.9543	0.9769	0.9772

MEAN RATINGS BY TEACHERS OF EXTENT AT ENTRY OF TASKS

EXTENT MEANS & ST.DEV

TOTAL SAMPLE	N	SUM	SUM**2	MEAN	VAR(N)	SD(N)	SD(N-1)
1	1804	5420.0000	17418.0000	3.0044	0.6286	0.7928	0.7931
2	1805	5263.0000	16841.0000	2.9158	0.8284	0.9101	0.9104
3	1798	5260.0000	16838.0000	2.9255	0.8065	0.8980	0.8983
4	1767	5174.0000	16338.0000	2.9281	0.6723	0.8199	0.8201
5	1766	5366.0000	17426.0000	3.0385	0.6350	0.7969	0.7971
6	1806	5738.0000	19507.0000	3.1772	0.7039	0.8390	0.8392
7	1792	5215.0000	16805.0000	2.9102	0.9088	0.9533	0.9536
8	1791	5189.0000	16327.0000	2.8973	0.7220	0.8497	0.8499
9	1808	5075.0000	16063.0000	2.8070	1.0053	1.0027	1.0029
10	1800	4557.0000	13945.0000	2.5317	1.3379	1.1567	1.1570
11	1801	4546.0000	13774.0000	2.5242	1.2766	1.1299	1.1302
12	1802	4699.0000	14199.0000	2.6077	1.0797	1.0391	1.0394
13	1810	5799.0000	19631.0000	3.2039	0.5811	0.7623	0.7625
14	1803	5530.0000	18192.0000	3.0671	0.6827	0.8262	0.8265
15	1793	5326.0000	17142.0000	2.9704	0.7370	0.8585	0.8587
16	1788	5116.0000	15948.0000	2.8613	0.7324	0.8558	0.8561
17	1812	5347.0000	17071.0000	2.9509	0.7134	0.8446	0.8448
18	1807	5568.0000	18122.0000	3.0814	0.5341	0.7308	0.7310
19	1797	5614.0000	18594.0000	3.1241	0.5873	0.7663	0.7665
20	1784	5363.0000	17505.0000	3.0062	0.7752	0.8804	0.8807
21	1804	5873.0000	20057.0000	3.2555	0.5195	0.7208	0.7210
22	1805	5616.0000	18448.0000	3.1114	0.5400	0.7348	0.7350
23	1797	5707.0000	19065.0000	3.1758	0.5233	0.7234	0.7236
24	1793	5178.0000	16548.0000	2.8879	0.8893	0.9430	0.9433
25	1806	5595.0000	18271.0000	3.0980	0.5192	0.7205	0.7207
26	1801	5302.0000	16784.0000	2.9439	0.6526	0.8078	0.8081
27	1807	5802.0000	19596.0000	3.2108	0.5350	0.7314	0.7316
28	1809	5913.0000	20997.0000	3.2687	0.9228	0.9607	0.9609
29	1794	5639.0000	18727.0000	3.1433	0.5586	0.7474	0.7476
30	1785	5492.0000	18030.0000	3.0768	0.6344	0.7965	0.7967
31	1803	5321.0000	17193.0000	2.9512	0.8262	0.9090	0.9092
32	1811	5618.0000	18354.0000	3.1022	0.5114	0.7151	0.7153
33	1797	5486.0000	17836.0000	3.0529	0.6054	0.7781	0.7783
34	1795	5354.0000	17076.0000	2.9827	0.6164	0.7851	0.7853
35	1802	4869.0000	14627.0000	2.7020	0.8163	0.9035	0.9037
36	1801	5198.0000	16284.0000	2.8862	0.7116	0.8436	0.8438
37	1802	5399.0000	17329.0000	2.9961	0.6398	0.7999	0.8001
38	1806	4679.0000	13809.0000	2.5908	0.9339	0.9664	0.9666
39	1799	4806.0000	14406.0000	2.6715	0.8710	0.9332	0.9335
40	1798	4248.0000	11948.0000	2.3626	1.0632	1.0311	1.0314
41	1809	5822.0000	19604.0000	3.2184	0.4791	0.6922	0.6924
42	1803	5852.0000	20024.0000	3.2457	0.5714	0.7559	0.7561
43	1802	6196.0000	22224.0000	3.4384	0.5104	0.7144	0.7146
44	1797	6160.0000	22050.0000	3.4279	0.5197	0.7209	0.7211
45	1790	6035.0000	21351.0000	3.3715	0.5609	0.7489	0.7491
46	1796	5970.0000	20960.0000	3.3241	0.6322	0.7951	0.7953
47	1799	5736.0000	19448.0000	3.1884	0.6443	0.8027	0.8029
48	1799	5970.0000	20818.0000	3.3185	0.5595	0.7480	0.7482
49	1799	4640.0000	14312.0000	2.5792	1.3032	1.1416	1.1419
50	1786	4644.0000	14426.0000	2.6002	1.3161	1.1472	1.1475
51	1792	5538.0000	18292.0000	3.0904	0.6570	0.8106	0.8108
52	1791	5745.0000	19689.0000	3.2077	0.7039	0.8390	0.8392
53	1797	5562.0000	18592.0000	3.0952	0.7661	0.8753	0.8755
54	1788	5142.0000	16444.0000	2.8758	0.9264	0.9625	0.9628
55	1784	5338.0000	17196.0000	2.9922	0.6860	0.8283	0.8285
56	1799	6091.0000	21587.0000	3.3858	0.5360	0.7321	0.7323
57	1793	5943.0000	20703.0000	3.3146	0.6718	0.8197	0.8199
58	1791	5990.0000	20986.0000	3.3445	0.5318	0.7292	0.7294
59	1793	6125.0000	21855.0000	3.4161	0.5196	0.7208	0.7210
60	1781	5587.0000	18847.0000	3.1370	0.7415	0.8611	0.8613
61	1791	5872.0000	20242.0000	3.2786	0.5527	0.7435	0.7437
62	1780	5910.0000	20536.0000	3.3202	0.5132	0.7164	0.7166
63	1783	5599.0000	18729.0000	3.1402	0.6433	0.8020	0.8023
64	1783	5726.0000	19400.0000	3.2114	0.5672	0.7531	0.7533
65	1778	5496.0000	18152.0000	3.0911	0.6542	0.8089	0.8091
66	1778	4682.0000	14264.0000	2.6333	1.0883	1.0432	1.0435
67	1782	5116.0000	16494.0000	2.8709	1.0136	1.0068	1.0071
68	1783	5177.0000	16957.0000	2.9035	1.0799	1.0392	1.0395
69	1783	5759.0000	19563.0000	3.2299	0.5394	0.7344	0.7346
70	1771	5850.0000	20170.0000	3.3032	0.4778	0.6912	0.6914
71	1767	4714.0000	14522.0000	2.6678	1.1013	1.0494	1.0497
72	1762	4478.0000	13692.0000	2.5414	1.3118	1.1454	1.1457
73	1768	5326.0000	17416.0000	3.0124	0.7759	0.8808	0.8811
74	1779	4211.0000	12249.0000	2.3671	1.2824	1.1324	1.1327
75	1766	4465.0000	13433.0000	2.5283	1.2141	1.1019	1.1022
76	1773	4311.0000	12763.0000	2.4315	1.2865	1.1342	1.1345
77	1767	4166.0000	12396.0000	2.3577	1.4567	1.2069	1.2073
78	1773	4566.0000	14338.0000	2.5753	1.4547	1.2061	1.2065
79	1786	4920.0000	15248.0000	2.7548	0.9488	0.9741	0.9743
80	1759	3629.0000	11189.0000	2.0631	2.1046	1.4507	1.4511
81	1784	5092.0000	16130.0000	2.8543	0.8947	0.9459	0.9461
82	1781	4854.0000	14950.0000	2.7254	0.9662	0.9829	0.9832
83	1785	3865.0000	10821.0000	2.1653	1.3738	1.1721	1.1724

MEAN RATINGS BY TEACHERS OF RELATIONSHIP OF TASKS

RELATION MEANS & ST.DEV

TOTAL SAMPLE	N	SUM	SUM**2	MEAN	VAR(N)	SD(N)	SD(N-1)
1	1785	3934.0000	9700.0000	2.2039	0.5769	0.7595	0.7598
2	1783	3712.0000	9006.0000	2.0819	0.7168	0.8466	0.8469
3	1775	3724.0000	9064.0000	2.0980	0.7048	0.8395	0.8397
4	1747	3784.0000	9230.0000	2.1660	0.5918	0.7693	0.7695
5	1750	3984.0000	10048.0000	2.2766	0.5589	0.7476	0.7478
6	1789	3924.0000	9900.0000	2.1934	0.7228	0.8502	0.8504
7	1769	3676.0000	8906.0000	2.0780	0.7164	0.8464	0.8466
8	1768	3781.0000	9155.0000	2.1386	0.6047	0.7776	0.7778
9	1801	3607.0000	8525.0000	2.0028	0.7224	0.8499	0.8502
10	1791	3168.0000	7332.0000	1.7688	0.9650	0.9823	0.9826
11	1795	3599.0000	8695.0000	2.0050	0.8239	0.9077	0.9080
12	1795	3436.0000	8038.0000	1.9142	0.8138	0.9021	0.9024
13	1799	4238.0000	10954.0000	2.3558	0.5394	0.7344	0.7346
14	1795	4276.0000	11206.0000	2.3822	0.5682	0.7538	0.7540
15	1785	3964.0000	9922.0000	2.2207	0.6269	0.7918	0.7920
16	1792	3821.0000	9245.0000	2.1323	0.6125	0.7826	0.7829
17	1803	3931.0000	9735.0000	2.1803	0.6458	0.8036	0.8039
18	1792	4117.0000	10443.0000	2.2974	0.5494	0.7412	0.7414
19	1782	4041.0000	10197.0000	2.2677	0.5799	0.7615	0.7617
20	1767	3868.0000	9662.0000	2.1890	0.6762	0.8223	0.8226
21	1795	4388.0000	11650.0000	2.4446	0.5143	0.7172	0.7174
22	1791	4273.0000	11121.0000	2.3858	0.5173	0.7192	0.7194
23	1784	4235.0000	11061.0000	2.3739	0.5648	0.7515	0.7517
24	1777	3752.0000	9338.0000	2.1114	0.7968	0.8926	0.8929
25	1791	4159.0000	10597.0000	2.3222	0.5243	0.7241	0.7243
26	1788	3942.0000	9752.0000	2.2047	0.5934	0.7704	0.7706
27	1787	4255.0000	11131.0000	2.3811	0.5593	0.7479	0.7481
28	1798	3822.0000	9602.0000	2.1257	0.8218	0.9065	0.9068
29	1785	4056.0000	10236.0000	2.2723	0.5712	0.7558	0.7560
30	1782	3924.0000	9708.0000	2.2020	0.5989	0.7739	0.7741
31	1797	3791.0000	9215.0000	2.1096	0.6775	0.8231	0.8233
32	1802	3984.0000	9806.0000	2.2109	0.5538	0.7441	0.7444
33	1785	3988.0000	9898.0000	2.2342	0.5536	0.7440	0.7442
34	1789	3900.0000	9508.0000	2.1800	0.5623	0.7499	0.7501
35	1799	3663.0000	8589.0000	2.0361	0.6285	0.7928	0.7930
36	1800	3805.0000	9105.0000	2.1139	0.5898	0.7680	0.7682
37	1799	3868.0000	9366.0000	2.1501	0.5834	0.7638	0.7640
38	1802	3558.0000	8204.0000	1.9745	0.6542	0.8088	0.8090
39	1782	3540.0000	8170.0000	1.9865	0.6384	0.7990	0.7992
40	1781	3242.0000	7290.0000	1.8203	0.7796	0.8830	0.8832
41	1791	4023.0000	10059.0000	2.2462	0.5709	0.7556	0.7558
42	1790	4040.0000	10164.0000	2.2570	0.5842	0.7644	0.7646
43	1789	4256.0000	11108.0000	2.3790	0.5495	0.7413	0.7415
44	1776	4250.0000	11148.0000	2.3930	0.5505	0.7420	0.7422
45	1777	4194.0000	10884.0000	2.3602	0.5546	0.7447	0.7449
46	1779	4073.0000	10431.0000	2.2895	0.6216	0.7884	0.7887
47	1780	3978.0000	9974.0000	2.2348	0.6089	0.7803	0.7805
48	1779	4015.0000	10203.0000	2.2569	0.6417	0.8011	0.8013
49	1796	3116.0000	6744.0000	1.7350	0.7449	0.8631	0.8633
50	1780	3173.0000	7139.0000	1.7826	0.8331	0.9127	0.9130
51	1781	3915.0000	9689.0000	2.1982	0.6081	0.7798	0.7800
52	1785	3882.0000	9628.0000	2.1748	0.6641	0.8149	0.8152
53	1790	3818.0000	9407.0000	2.1330	0.7030	0.8384	0.8387
54	1783	3718.0000	9010.0000	2.0852	0.7050	0.8397	0.8399
55	1776	3823.0000	9337.0000	2.1526	0.6237	0.7897	0.7900
56	1790	4395.0000	11801.0000	2.4553	0.5642	0.7511	0.7513
57	1793	4260.0000	11250.0000	2.3759	0.6295	0.7934	0.7936
58	1778	4376.0000	11700.0000	7.4612	0.5230	0.7232	0.7234
59	1779	4255.0000	11213.0000	2.3918	0.5823	0.7631	0.7633
60	1766	3865.0000	9629.0000	2.1886	0.6626	0.8140	0.8143
61	1773	4281.0000	11287.0000	2.4146	0.5360	0.7321	0.7323
62	1768	4306.0000	11428.0000	2.4355	0.5320	0.7294	0.7296
63	1771	4093.0000	10467.0000	2.3111	0.5689	0.7543	0.7545
64	1770	4166.0000	10786.0000	2.3537	0.5540	0.7443	0.7445
65	1771	4006.0000	10132.0000	2.2620	0.6044	0.7774	0.7777
66	1761	3313.0000	7565.0000	1.8813	0.7565	0.8698	0.8700
67	1767	3598.0000	8614.0000	2.0362	0.7287	0.8537	0.8539
68	1781	3616.0000	8628.0000	2.0303	0.7223	0.8499	0.8501
69	1778	4239.0000	11061.0000	2.3841	0.5369	0.7327	0.7330
70	1762	4313.0000	11449.0000	2.4478	0.5061	0.7114	0.7116
71	1764	3424.0000	8066.0000	1.9410	0.8049	0.8972	0.8974
72	1758	3332.0000	7782.0000	1.8953	0.8343	0.9134	0.9137
73	1771	3588.0000	8508.0000	2.0260	0.6995	0.8364	0.8366
74	1779	2969.0000	6195.0000	1.6689	0.6970	0.8349	0.8351
75	1761	3095.0000	6665.0000	1.7575	0.6959	0.8342	0.8344
76	1770	3020.0000	6426.0000	1.7062	0.7193	0.8481	0.8484
77	1770	2779.0000	5861.0000	1.5701	0.8462	0.9199	0.9202
78	1779	3076.0000	6652.0000	1.7291	0.7495	0.8658	0.8660
79	1773	3427.0000	7827.0000	1.9329	0.6785	0.8237	0.8240
80	1762	3483.0000	8533.0000	1.9767	0.9353	0.9671	0.9674
81	1769	3814.0000	9408.0000	2.1560	0.6698	0.8184	0.8187
82	1762	3646.0000	8796.0000	2.0692	0.7103	0.8428	0.8430
83	1766	3282.0000	7458.0000	1.8584	0.7693	0.8771	0.8774

MEAN RATINGS BY ADMINISTRATORS OF IMPORTANCE OF TASKS

IMPORT. MEANS & ST.DEV

TOTAL SAMPLE	N	SUM	SUM**2	MEAN	VAR(N)	SD(N)	SD(N-1)
1	89	306.0000	1100.0000	3.4382	0.5383	0.7337	0.7379
2	89	290.0000	1004.0000	3.2584	0.6636	0.8146	0.8192
3	89	281.0000	933.0000	3.1573	0.5146	0.7173	0.7214
4	88	281.0000	949.0000	3.1932	0.5877	0.7666	0.7710
5	88	288.0000	1002.0000	3.2727	0.6756	0.8220	0.8267
6	88	300.0000	1070.0000	3.4091	0.5372	0.7329	0.7371
7	86	252.0000	804.0000	2.9302	0.7626	0.8733	0.8784
8	86	249.0000	771.0000	2.8953	0.5821	0.7629	0.7674
9	89	254.0000	804.0000	2.8539	0.6302	0.7939	0.7984
10	89	244.0000	754.0000	2.7416	0.9557	0.9776	0.9831
11	89	244.0000	740.0000	2.7416	0.7984	0.8935	0.8986
12	88	262.0000	837.0000	2.9773	0.5904	0.7684	0.7728
13	89	312.0000	1148.0000	3.5056	0.6095	0.7807	0.7851
14	89	310.0000	1132.0000	3.4831	0.5868	0.7660	0.7704
15	89	297.0000	1043.0000	3.3371	0.5830	0.7635	0.7679
16	88	275.0000	915.0000	3.1250	0.6321	0.7950	0.7996
17	89	288.0000	982.0000	3.2360	0.5623	0.7499	0.7541
18	88	301.0000	1071.0000	3.4205	0.4709	0.6863	0.6902
19	89	295.0000	1027.0000	3.3146	0.5527	0.7434	0.7477
20	88	277.0000	931.0000	3.1477	0.6714	0.8194	0.8241
21	89	322.0000	1196.0000	3.6180	0.3484	0.5903	0.5936
22	89	308.0000	1110.0000	3.4607	0.4956	0.7040	0.7080
23	88	308.0000	1112.0000	3.5000	0.3864	0.6216	0.6251
24	89	298.0000	1056.0000	3.3483	0.6540	0.8087	0.8133
25	89	296.0000	1024.0000	3.3258	0.4444	0.6666	0.6704
26	89	286.0000	964.0000	3.2135	0.5050	0.7106	0.7147
27	89	318.0000	1168.0000	3.5730	0.3570	0.5975	0.6009
28	88	319.0000	1189.0000	3.6250	0.3707	0.6089	0.6124
29	88	303.0000	1083.0000	3.4432	0.4513	0.6718	0.6757
30	88	291.0000	1001.0000	3.3068	0.4400	0.6633	0.6671
31	88	269.0000	877.0000	3.0568	0.6218	0.7885	0.7930
32	88	303.0000	1081.0000	3.4432	0.4286	0.6547	0.6584
33	88	289.0000	993.0000	3.2841	0.4988	0.7063	0.7103
34	87	264.0000	864.0000	3.0345	0.7229	0.8503	0.8552
35	88	257.0000	821.0000	2.9205	0.8005	0.8947	0.8998
36	88	259.0000	811.0000	2.9432	0.5536	0.7440	0.7483
37	88	268.0000	866.0000	3.0455	0.5661	0.7524	0.7567
38	88	232.0000	670.0000	2.6364	0.6632	0.8144	0.8191
39	88	244.0000	728.0000	2.7727	0.5847	0.7647	0.7690
40	88	208.0000	552.0000	2.3636	0.6860	0.8282	0.8330
41	87	309.0000	1147.0000	3.5517	0.5692	0.7544	0.7588
42	88	312.0000	1144.0000	3.5455	0.4298	0.6556	0.6593
43	88	323.0000	1213.0000	3.6705	0.3119	0.5584	0.5616
44	88	325.0000	1223.0000	3.6932	0.2581	0.5081	0.5110
45	88	320.0000	1190.0000	3.6364	0.2996	0.5473	0.5505
46	87	311.0000	1141.0000	3.5747	0.3364	0.5800	0.5833
47	87	295.0000	1037.0000	3.3908	0.4220	0.6496	0.6534
48	87	306.0000	1112.0000	3.5172	0.4106	0.6408	0.6445
49	89	275.0000	919.0000	3.0899	0.7784	0.8823	0.8873
50	89	277.0000	923.0000	3.1124	0.6840	0.8270	0.8317
51	89	313.0000	1139.0000	3.5169	0.4295	0.6554	0.6591
52	89	313.0000	1137.0000	3.5169	0.4070	0.6380	0.6416
53	89	309.0000	1104.0000	3.4719	0.4065	0.6376	0.6412
54	89	293.0000	1011.0000	3.2921	0.5214	0.7221	0.7262
55	88	310.0000	1122.0000	3.5227	0.3404	0.5834	0.5868
56	89	331.0000	1251.0000	3.7191	0.2245	0.4738	0.4765
57	89	326.0000	1216.0000	3.6629	0.2459	0.4959	0.4987
58	88	324.0000	1216.0000	3.6818	0.2624	0.5122	0.5152
59	88	319.0000	1189.0000	3.6250	0.3707	0.6089	0.6124
60	88	283.0000	977.0000	3.2159	0.7602	0.8719	0.8769
61	88	317.0000	1181.0000	3.6023	0.4441	0.6664	0.6702
62	88	329.0000	1253.0000	3.7386	0.2612	0.5111	0.5140
63	88	304.0000	1084.0000	3.4545	0.3843	0.6199	0.6235
64	88	304.0000	1088.0000	3.4545	0.4298	0.6556	0.6593
65	88	287.0000	977.0000	3.2614	0.4658	0.6825	0.6864
66	87	240.0000	734.0000	2.7586	0.8268	0.9093	0.9146
67	88	277.0000	925.0000	3.1477	0.6032	0.7766	0.7811
68	88	289.0000	1001.0000	3.2841	0.5897	0.7679	0.7724
69	87	322.0000	1220.0000	3.7011	0.3245	0.5696	0.5729
70	86	318.0000	1198.0000	3.6977	0.2574	0.5074	0.5104
71	86	241.0000	739.0000	2.8023	0.7400	0.8602	0.8653
72	86	256.0000	876.0000	2.9767	0.7436	0.8623	0.8674
73	87	280.0000	942.0000	3.2184	0.4695	0.6852	0.6892
74	89	248.0000	774.0000	2.7865	0.9320	0.9654	0.9708
75	89	246.0000	754.0000	2.7640	0.8320	0.9121	0.9173
76	88	246.0000	768.0000	2.7955	0.9127	0.9554	0.9608
77	88	244.0000	760.0000	2.7727	0.9483	0.9738	0.9794
78	88	259.0000	835.0000	2.9432	0.8263	0.9090	0.9142
79	88	258.0000	812.0000	2.9318	0.6317	0.7948	0.7994
80	86	254.0000	814.0000	2.9535	0.7420	0.8614	0.8665
81	88	289.0000	993.0000	3.2841	0.4988	0.7063	0.7103
82	88	266.0000	876.0000	3.0227	0.8177	0.9042	0.9094
83	87	235.0000	701.0000	2.7011	0.7613	0.8725	0.8776

MEAN RATINGS BY ADMINISTRATORS
OF EXTENT AT ENTRY OF TASKS

EXTENT   MEANS & ST.DEV

TOTAL SAMPLE	N	SUM	SUM**2	MEAN	VAR(N)	SD(N)	SD(N-1)
1	88	276.0000	894.0000	3.1364	0.3223	0.5677	0.5710
2	87	260.0000	817.0000	2.9885	0.4022	0.6342	0.6378
3	89	269.0000	851.0000	3.0225	0.4265	0.6530	0.6567
4	88	267.0000	859.0000	3.0341	0.5557	0.7454	0.7497
5	88	269.0000	859.0000	3.0568	0.4172	0.6459	0.6496
6	88	302.0000	1080.0000	3.4318	0.4954	0.7038	0.7078
7	86	254.0000	808.0000	2.9535	0.6723	0.8199	0.8247
8	86	252.0000	784.0000	2.9302	0.5765	0.7593	0.7637
9	88	249.0000	781.0000	2.8295	0.8687	0.9320	0.9374
10	88	244.0000	770.0000	2.7727	1.0620	1.0305	1.0364
11	88	220.0000	636.0000	2.5000	0.9773	0.9886	0.9943
12	88	262.0000	850.0000	2.9773	0.7949	0.8916	0.8967
13	89	299.0000	1045.0000	3.3596	0.4550	0.6745	0.6784
14	89	288.0000	972.0000	3.2360	0.4499	0.6708	0.6746
15	89	282.0000	948.0000	3.1685	0.6120	0.7823	0.7868
16	88	262.0000	836.0000	2.9773	0.6358	0.7974	0.8020
17	88	274.0000	898.0000	3.1136	0.5098	0.7140	0.7181
18	89	283.0000	937.0000	3.1798	0.4171	0.6458	0.6495
19	89	299.0000	1057.0000	3.3596	0.5898	0.7680	0.7724
20	88	273.0000	923.0000	3.1023	0.8645	0.9298	0.9351
21	89	299.0000	1041.0000	3.3596	0.4100	0.6404	0.6440
22	89	288.0000	974.0000	3.2360	0.4724	0.6873	0.6912
23	88	281.0000	929.0000	3.1932	0.3604	0.6003	0.6038
24	88	278.0000	932.0000	3.1591	0.6111	0.7817	0.7862
25	89	285.0000	965.0000	3.2022	0.3636	0.6030	0.6064
26	89	277.0000	891.0000	3.1124	0.3245	0.5696	0.5728
27	89	297.0000	1021.0000	3.3371	0.3358	0.5795	0.5828
28	88	311.0000	1145.0000	3.5341	0.5216	0.7222	0.7263
29	88	294.0000	1016.0000	3.3409	0.3838	0.6195	0.6231
30	87	285.0000	977.0000	3.2759	0.4986	0.7061	0.7102
31	88	267.0000	867.0000	3.0341	0.6466	0.8041	0.8087
32	87	282.0000	942.0000	3.2414	0.3210	0.5666	0.5699
33	87	276.0000	904.0000	3.1724	0.3266	0.5715	0.5748
34	87	261.0000	835.0000	3.0000	0.5977	0.7731	0.7776
35	88	256.0000	790.0000	2.9091	0.5145	0.7173	0.7214
36	88	263.0000	817.0000	2.9886	0.3521	0.5934	0.5968
37	88	267.0000	843.0000	3.0341	0.3738	0.6114	0.6149
38	88	231.0000	663.0000	2.6250	0.6435	0.8022	0.8068
39	88	238.0000	710.0000	2.7045	0.7536	0.8681	0.8731
40	88	213.0000	591.0000	2.4205	0.8573	0.9259	0.9312
41	87	297.0000	1059.0000	3.4138	0.5184	0.7200	0.7242
42	88	305.0000	1103.0000	3.4659	0.5216	0.7222	0.7263
43	88	317.0000	1183.0000	3.6023	0.4668	0.6832	0.6872
44	88	327.0000	1243.0000	3.7159	0.3170	0.5630	0.5663
45	88	321.0000	1203.0000	3.6477	0.3645	0.6038	0.6072
46	87	313.0000	1167.0000	3.5977	0.4703	0.6858	0.6898
47	87	299.0000	1077.0000	3.4368	0.5678	0.7536	0.7579
48	87	298.0000	1070.0000	3.4253	0.5663	0.7525	0.7569
49	88	259.0000	849.0000	2.9432	0.9854	0.9927	0.9984
50	88	265.0000	871.0000	3.0114	0.8294	0.9107	0.9159
51	89	289.0000	979.0000	3.2472	0.4558	0.6751	0.6789
52	88	305.0000	1103.0000	3.4659	0.5216	0.7222	0.7263
53	89	291.0000	989.0000	3.2697	0.4217	0.6494	0.6530
54	89	280.0000	926.0000	3.1461	0.5068	0.7119	0.7159
55	88	296.0000	1020.0000	3.3636	0.2769	0.5262	0.5292
56	88	308.0000	1106.0000	3.5000	0.3182	0.5641	0.5673
57	89	302.0000	1082.0000	3.3933	0.6431	0.8019	0.8065
58	88	305.0000	1083.0000	3.4659	0.2943	0.5425	0.5456
59	88	310.0000	1128.0000	3.5227	0.4086	0.6392	0.6429
60	88	286.0000	988.0000	3.2500	0.6648	0.8153	0.8200
61	88	300.0000	1052.0000	3.4091	0.3326	0.5768	0.5801
62	88	304.0000	1082.0000	3.4545	0.3616	0.6013	0.6048
63	88	287.0000	965.0000	3.2614	0.3294	0.5739	0.5772
64	88	283.0000	949.0000	3.2159	0.4420	0.6648	0.6687
65	88	278.0000	914.0000	3.1591	0.4065	0.6376	0.6412
66	87	231.0000	693.0000	2.6552	0.9156	0.9569	0.9624
67	88	261.0000	853.0000	2.9659	0.8966	0.9469	0.9523
68	88	282.0000	968.0000	3.2045	0.7309	0.8549	0.8598
69	87	297.0000	1049.0000	3.4138	0.4035	0.6352	0.6389
70	86	293.0000	1025.0000	3.4070	0.3111	0.5578	0.5610
71	86	224.0000	672.0000	2.6047	1.0297	1.0148	1.0207
72	87	233.0000	705.0000	2.6782	0.9309	0.9648	0.9704
73	87	266.0000	858.0000	3.0575	0.5139	0.7169	0.7211
74	88	234.0000	778.0000	2.6591	1.2020	1.0963	1.1026
75	88	235.0000	729.0000	2.6705	1.1528	1.0737	1.0798
76	88	240.0000	746.0000	2.7273	1.0393	1.0194	1.0253
77	88	242.0000	782.0000	2.7500	1.3239	1.1506	1.1572
78	88	253.0000	843.0000	2.8750	1.3139	1.1463	1.1528
79	88	246.0000	778.0000	2.7955	1.0263	1.0131	1.0189
80	86	180.0000	526.0000	2.0930	1.7355	1.3174	1.3251
81	88	273.0000	893.0000	3.1023	0.5236	0.7236	0.7278
82	88	243.0000	759.0000	2.7614	0.9999	0.9999	1.0057
83	88	210.0000	608.0000	2.3864	1.2144	1.1020	1.1083

MEAN RATINGS BY ADMINISTRATORS
OF RELATIONSHIP OF TASKS

RELATION MEANS & ST.DEV

TOTAL SAMPLE	N	SUM	SUM**2	MEAN	VAR(N)	SD(N)	SD(N-1)
1	87	211.0000	549.0000	2.4253	0.4283	0.6545	0.6583
2	89	218.0000	576.0000	2.4494	0.4722	0.6871	0.6910
3	89	210.0000	552.0000	2.3596	0.6348	0.7967	0.8012
4	87	212.0000	556.0000	2.4368	0.4529	0.6730	0.6769
5	87	212.0000	552.0000	2.4368	0.4069	0.6379	0.6416
6	87	224.0000	610.0000	2.5747	0.3821	0.6183	0.6219
7	86	199.0000	521.0000	2.3140	0.7038	0.8389	0.8438
8	85	199.0000	509.0000	2.3412	0.5071	0.7121	0.7164
9	88	197.0000	507.0000	2.2386	0.7499	0.8660	0.8709
10	88	180.0000	458.0000	2.0455	1.0207	1.0103	1.0161
11	88	187.0000	455.0000	2.1250	0.6548	0.8092	0.8139
12	88	202.0000	518.0000	2.2955	0.6173	0.7857	0.7902
13	89	233.0000	647.0000	2.6180	0.4159	0.6449	0.6485
14	88	240.0000	682.0000	2.7273	0.3120	0.5586	0.5618
15	88	229.0000	625.0000	2.6023	0.3304	0.5748	0.5781
16	87	214.0000	560.0000	2.4598	0.3863	0.6215	0.6251
17	88	206.0000	550.0000	2.3409	0.7701	0.8776	0.8826
18	89	224.0000	608.0000	2.5169	0.4969	0.7049	0.7089
19	88	216.0000	578.0000	2.4545	0.5434	0.7371	0.7414
20	88	213.0000	565.0000	2.4205	0.5619	0.7496	0.7539
21	89	235.0000	649.0000	2.6404	0.3202	0.5658	0.5690
22	89	226.0000	606.0000	2.5393	0.3608	0.6007	0.6041
23	88	220.0000	584.0000	2.5000	0.3864	0.6216	0.6251
24	88	213.0000	553.0000	2.4205	0.4255	0.6523	0.6560
25	89	222.0000	586.0000	2.4944	0.3623	0.6019	0.6053
26	89	223.0000	589.0000	2.5056	0.3399	0.5830	0.5863
27	89	224.0000	600.0000	2.5169	0.4070	0.6380	0.6416
28	87	205.0000	539.0000	2.3563	0.6431	0.8020	0.8066
29	88	227.0000	613.0000	2.5795	0.3119	0.5584	0.5616
30	87	213.0000	553.0000	2.4483	0.3623	0.6019	0.6054
31	88	209.0000	541.0000	2.3750	0.5071	0.7121	0.7162
32	87	223.0000	597.0000	2.5632	0.2920	0.5404	0.5435
33	88	226.0000	606.0000	2.5682	0.2908	0.5393	0.5424
34	87	211.0000	553.0000	2.4253	0.4743	0.6887	0.6927
35	88	212.0000	552.0000	2.4091	0.4690	0.6848	0.6888
36	88	201.0000	501.0000	2.2841	0.4761	0.6900	0.6940
37	88	205.0000	515.0000	2.3295	0.4255	0.6523	0.6560
38	88	194.0000	468.0000	2.2045	0.4582	0.6769	0.6808
39	88	203.0000	507.0000	2.3068	0.4400	0.6633	0.6671
40	87	180.0000	428.0000	2.0690	0.6389	0.7993	0.8040
41	87	218.0000	588.0000	2.5057	0.4799	0.6927	0.6967
42	88	214.0000	572.0000	2.4318	0.5863	0.7657	0.7701
43	87	221.0000	601.0000	2.5402	0.4553	0.6747	0.6787
44	88	226.0000	618.0000	2.5682	0.4272	0.6536	0.6573
45	88	238.0000	668.0000	2.7045	0.2763	0.5257	0.5287
46	87	223.0000	615.0000	2.5632	0.4989	0.7063	0.7104
47	87	216.0000	580.0000	2.4828	0.5026	0.7089	0.7130
48	87	205.0000	535.0000	2.3563	0.5972	0.7728	0.7772
49	88	187.0000	455.0000	2.1250	0.6548	0.8092	0.8139
50	88	197.0000	513.0000	2.2386	0.8181	0.9045	0.9096
51	89	226.0000	610.0000	2.5393	0.4058	0.6370	0.6406
52	88	209.0000	551.0000	2.3750	0.6207	0.7879	0.7924
53	88	212.0000	558.0000	2.4091	0.5372	0.7329	0.7371
54	89	227.0000	611.0000	2.5506	0.3598	0.5998	0.6032
55	88	232.0000	632.0000	2.6364	0.2314	0.4810	0.4838
56	89	246.0000	702.0000	2.7640	0.2477	0.4977	0.5005
57	88	231.0000	641.0000	2.6250	0.3935	0.6273	0.6309
58	88	232.0000	636.0000	2.6364	0.2769	0.5262	0.5292
59	88	232.0000	646.0000	2.6364	0.3905	0.6249	0.6285
60	88	203.0000	519.0000	2.3068	0.5763	0.7592	0.7635
61	88	229.0000	633.0000	2.6023	0.4214	0.6491	0.6528
62	88	239.0000	675.0000	2.7159	0.2943	0.5425	0.5456
63	88	221.0000	591.0000	2.5114	0.4090	0.6395	0.6432
64	88	228.0000	620.0000	2.5909	0.3326	0.5768	0.5801
65	88	208.0000	532.0000	2.3636	0.4587	0.6773	0.6811
66	87	176.0000	410.0000	2.0230	0.6202	0.7875	0.7921
67	88	198.0000	490.0000	2.2500	0.5057	0.7111	0.7152
68	88	203.0000	523.0000	2.3068	0.6218	0.7885	0.7930
69	87	229.0000	631.0000	2.6322	0.3245	0.5696	0.5729
70	86	233.0000	657.0000	2.7093	0.2992	0.5470	0.5502
71	87	178.0000	422.0000	2.0460	0.6646	0.8152	0.8199
72	86	187.0000	455.0000	2.1744	0.5626	0.7501	0.7545
73	87	198.0000	496.0000	2.2759	0.5216	0.7222	0.7264
74	87	175.0000	407.0000	2.0115	0.6321	0.7950	0.7996
75	87	167.0000	381.0000	1.9195	0.6947	0.8335	0.8383
76	88	178.0000	418.0000	2.0227	0.6586	0.8115	0.8162
77	88	165.0000	383.0000	1.8750	0.8366	0.9147	0.9199
78	88	174.0000	410.0000	1.9773	0.7495	0.8657	0.8707
79	88	182.0000	438.0000	2.0682	0.6999	0.8366	0.8414
80	86	207.0000	559.0000	2.4070	0.7065	0.8405	0.8454
81	88	228.0000	628.0000	2.5909	0.4236	0.6508	0.6545
82	88	208.0000	552.0000	2.3636	0.6860	0.8282	0.8330
83	88	198.0000	516.0000	2.2500	0.8011	0.8951	0.9002

APPENDIX G

JOB TASKS AND FACTOR LOADINGS ON PRINCIPAL COMPONENTS

FACTOR I: MANAGING AND INFLUENCING STUDENT BEHAVIOR

Factor I Items	Factor Loadings
62. Encourage, praise and support desired student behavior: ignore, correct, discourage, document or discipline student misbehavior	.72
61. Continuously monitor student in-class behavior (e.g., by positioning, eye contact, moving about classroom) to encourage student effort, to observe progress, and to maintain classroom order	.71
59. Establish, communicate and show by example standards of social behavior (e.g., respect for others, politeness) to assist in the development of social skills of students	.70
63. Monitor classroom activities and assign or reassign students to seats or workplaces that effectively facilitate on-task behavior	.68
64. Interact with students in a supportive and respectful manner to help them to pursue their academic, career, social and personal goals	.60
58. Maintain order in class and as students enter and leave class, by monitoring individual and group behavior	.59
60. Communicate and show by example to students multi-cultural and sex equity awareness, appreciation and understanding	.59
57. Communicate school rules and procedures to students when appropriate to parents	.57
56. Establish classroom rules and procedures and communicate these to students and when appropriate to parents	.55
70. Deal with (manage) student misbehavior	.54
65. Exchange information with parents, guardians or other teachers (or school personnel) to gain an understanding of student behavior and to facilitate student development	.52
69. Manage classroom time effectively in order to maintain continuous on-task behavior by students	.49
67. Monitor student behavior outside of the classroom in such locations as lunch room, assembly hall, hallway, playground, etc., to ensure orderly and safe conduct	.48

FACTOR I: MANAGING AND INFLUENCING STUDENT BEHAVIOR (cont.)

Factor I Items	Factor Loadings
68. Escort and supervise students in assemblies, pep rallies, fire drills, emergency procedures, field trips, etc.	.45
73. Recognize student health needs and refer problems to others as necessary	.41

FACTOR II: CLERICAL, ADMINISTRATIVE AND OTHER PROFESSIONAL FUNCTIONS

	Factor II Items	Factor Loadings
76.	Complete reports and maintain records of equipment and other school property received for issue to and use by students	.75
74.	Take inventory, store, distribute and collect books, materials and equipment used in class	.73
75.	Request additional materials and supplies as needed	.73
78.	Report acts of vandalism, and defaced, damaged or missing school property	.66
77.	Monitor classroom temperature, lighting and ventilation and perform other duties to ensure that facilities are comfortable and ready to use	.64
79.	Prepare, duplicate and/or file records, forms, quizzes or other materials to be used for teaching or learning	.59
83.	Serve on various school and/or district-wide committees (e.g., discipline committee, curriculum council, faculty council)	.56
72.	Supervise or guide the work of other adults in the class (e.g., teacher aides, volunteers)	.49
82.	Collaborate with colleagues to coordinate and expedite school routines, curriculum, teaching methods, etc.	.48
71.	Prepare reports or letters (e.g., letters of recommendation, letters to social service agencies) describing student behavior and/or progress	.45
80.	Orient, observe, assist and counsel beginning teachers or teachers in training	.45
81.	Keep abreast of developments in education and subject specialty by reading professional publications, participating in professional organizations, in-service programs, further education, attending professional conventions, etc	.37

FACTOR III: ASSESSING, GRADING AND RECORDING STUDENT LEARNING PROGRESS AND EVALUATING INSTRUCTIONAL EFFECTIVENESS

Factor III Items	Factor Loadings
43. Evaluate student written work for completeness, correctness, and accurate use of grammar, punctuation, spelling and sentence structure........................	.68
48. Incorporate test or evaluation scores into grades, record results, prepare report cards and interpret information to students, parents and/or guardians.....	.67
52. Establish and maintain student records (e.g., attendance, quiz scores, test scores, class work, projects completed, homework received)................	.65
42. Score, grade, record and give feedback on quizzes, tests, examinations, reports, projects, models, and other student work products...........................	.60
44. Evaluate student English language skills (speaking, reading, writing)....................................	.60
46. Assign, receive, correct, grade and return classroom assignments and homework...............................	.60
51. Analyze student achievement in class, using tests and evaluative information, to identify individual strengths and learning needs...........................	.59
41. Prepare and administer quizzes, tests and student exercises (e.g., contests, exhibits, projects) to direct student study, to measure student achievement and to evaluate instructional effectiveness...........	.55
47. Establish and maintain records of individual student achievement on specific elements of content or specific learning objectives...........................	.52
45. Correct and remedy problems students exhibit in English language skills...............................	.52
53. Identify and refer students experiencing health, physical or learning problems to appropriate school staff and follow-up as appropriate....................	.42
55. Analyze test scores and evaluation information to assess the instructional effectivensss of specific lessons and the need for additional or alternative instruction..	.42

FACTOR IV: PLANNING THE LESSONS, SELECTING THE MATERIALS AND PREVIEWING THE INSTRUCTIONAL PROGRAM

	Factor IV Items	Factor Loadings
7.	Prepare, write or outline instructional materials (e.g., lectures, classroom lessons or exercises, student workbooks, homework, computer software and/or other course materials)	.63
4.	Analyze instructional objectives to determine appropriate instructional content, media and methods	.60
8.	Obtain and/or prepare instructional aids such as forms, charts, models, transparencies, etc., for use in class	.57
1.	Translate and sequence the curriculum into specific instructional objectives and content specifications that will achieve the program goals	.55
3.	Prepare assessment techniques (e.g., pretests, pre-instructional questions) to determine current level of student functioning	.55
6.	Prepare written lesson plans specifying objectives, content and activities to be covered, sequence of instructional method to be used, materials and equipment needed, and standards of accomplishment for each lesson	.52
13.	Plan for the evaluation of student needs and progress by means such as quizzes, tests, standardized examinations, surveys and performance or "hands-on" measures related to specific instructional objectives	.52
5.	Specify lessons and experiences that best utilize the available time to instruct students	.51
11.	Review and recommend basic texts, study guides, student workbooks, reference materials, supplementary reading and/or other learning materials	.50
2.	Analyze student records, test scores, information from parents, other teachers and school records to determine current level of knowledge and readiness of students for lessons planned	.47
12.	Review and/or communicate plans with instructional leaders (e.g., coordinator) and/or other teachers to coordinate teaching plans and school activities	.47

FACTOR IV: PLANNING THE LESSONS, SELECTING THE MATERIALS AND PREVIEWING THE INSTRUCTIONAL PROGRAM (cont.)

	Factor IV Items	Factor Loadings
14.	Design alternative objectives and alternative lessons, based on results of student assessments, to remedy learning deficiencies and to tailor the program to the needs of individual students......................	.47
16.	Use information from assessment techniques or ask questions of students to assess readiness for lessons..	.46
9.	Prepare materials for use in lessons (e.g., mix paint, set up experiments, put out athletic equipment, etc.)..	.46
10.	Prepare apparatus and make operational checks on machines and equipment used for instruction and learning...	.45
15.	Give students an overview of lessons, state program goals and indicate importance of topics to orient students, to stimulate their interest, and to motivate learning...	.43

FACTOR V: IMPLEMENTING THE PLANNED INSTRUCTIONAL PROGRAM USING A VARIETY OF APPROACHES

	Factor V Items	Factor Loadings
	Teachers use a variety of approaches in presenting program content including:	
33.	Laboratory or "hands-on" instruction (e.g., reading, language, math, science, home economics, vocational shop, etc.)	.63
37.	Visual aids (e.g., flip charts, chalk boards, exhibits, models and real objects)	.59
34.	Presentations (e.g., lectures, illustrated talks, demonstrations)	.57
36.	Educational technology (e.g., filmstrips, slides, motion pictures, overhead projectors, educational television, video recorders, closed circuit TV, computer-assisted or computer-managed instruction)	.57
35.	Group interaction techniques (e.g., small-group and large-group discussions, symposiums, panel discussions)	.52
32.	Basic instructional strategies (e.g., questioning, study groups, reinforcing learning)	.51
25.	Facilitate student learning and encourage effort by responding to observed behavior, asking and answering questions, and evaluating responses	.49
29.	Provide feedback to facilitate student learning	.49
30.	Summarize content covered in each lesson	.49
38.	Community resources (e.g., resource persons, field trips)	.47
19.	Instruct students in order to impart knowledge of the established content and/or recent developments in a specific subject area	.45
31.	Prepare and maintain displays of student work, bulletin board charts and posters, and other notices to enhance learning	.42
22.	Select and use a variety of teaching techniques in presenting lessons (e.g., learning centers, discovery method, independent study, small-group discussion. lecture)	.41

FACTOR V: IMPLEMENTING THE PLANNED INSTRUCTIONAL PROGRAM USING A VARIETY OF APPROACHES (cont.)

	Factor V Items	Factor Loadings
27.	Provide opportunities for students to apply what they have learned	.41
26.	Monitor student responses to lessons, instructional materials, facilities, media, methods, and content used in teaching, and modify or recommend modification of instructional activities as necessary	.40
21.	Encourage students to use a variety of critical thinking skills (e.g., recall, comprehension, application, analysis, synthesis, evaluation)	.38
39.	Independent study (e.g., assignments, projects)	.36
28.	Ensure compliance with safety rules and monitor the proper and safe operation of tools, devices, equipment and materials used by students	.35

FACTOR VI: IDENTIFYING STUDENTS WITH INDIVIDUAL OR SIMILAR INSTRUCTIONAL NEEDS AND TEACHING THEM ACCORDINGLY

Factor VI Items	Factor Loadings
50. Interpret results of standardized, district and/or statewide tests to students, parents, and/or guardians	.53
17. Evaluate student capabilities and group students with similar instructional needs	.49
49. Administer and monitor standardized, district and/or statewide tests	.46
66. Select, direct, and/or reinforce students appointed to special assignments such as class monitor, chalkboard "housekeeper", team captain, etc	.46
20. Instruct students of a single class or grade on the content of a variety of areas of subject matter	.44
24. Implement classroom programs for students with special needs based on predetermined diagnostic measures and prescriptive materials (IEP)	.43
Teachers use a variety of approaches in presenting program content including:	
40. Peer instruction by students (e.g., student presentations, students instructing other students, peer tutoring)	.40
54. Participate in interviews and exchange information, in person or by telephone, with students, parents or guardians, school staff and relevant others to ensure proper development, care and custody of students	.35
18. Modify instruction to suit the needs of groups of students with similar instructional needs	.33
23. Provide individual assistance/instruction to students designed to meet individual needs	.31

APPENDIX J

MEAN IMPORTANCE RATINGS OF TASKS GROUPED BY FACTOR BY BIODATA VARIABLE

MEAN IMPORTANCE RATINGS OF TASKS GROUPED BY FACTOR BY BIODATA VARIABLE

0	Of no importance
1	Of little importance
2	Moderately important
3	Very Important
4	Extremely Important

Table 1

DISTRICT

	California			Georgia			New Jersey		
	N	M	SD	N	M	SD	N	M	SD
I	183	3.28	.48	539	3.48	.45	1068	3.44	.49
II	183	2.58	.63	536	2.88	.61	1055	2.77	.65
III	188	3.20	.55	547	3.43	.45	1069	3.39	.51
IV	190	2.88	.51	553	3:07	.50	1072	2.94	.52
V	189	2.99	.49	550	3.20	.45	1073	3.11	.48
VI	188	2.72	.59	545	3.04	.51	1068	2.96	.52

Table 2

AGE

	Below 35			35 - 44			45 - 54			55 and Above		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD
I	618	3.45	.47	676	3.43	.48	326	3.45	.48	146	3.46	.48
II	614	2.72	.63	672	2.75	.65	321	2.88	.64	144	2.98	.61
III	622	3.39	.51	681	3.39	.49	329	3.33	.50	148	3.33	.50
IV	625	2.96	.47	687	2.96	.54	330	3.03	.53	148	3.01	.51
V	626	3.13	.47	686	3.14	.43	329	3.12	.48	148	3.10	.48
VI	623	2.97	.52	682	2.95	.54	327	2.99	.54	145	2.95	.52

Factor I:	Controlling and Influencing Student Behavior
Factor II:	Clerical, Administrative and Professional Functions
Factor III:	Assessing, Grading and Recording Student Learning Progress and Evaluating Instructional Effectiveness
Factor IV:	Planning the Lessons, Selecting the Materials and Previewing the Instructional Program
Factor V:	Implementing the Planned Instructional Program Using a Variety of Approaches
Factor VI:	Identifying Students With Individual or Similar Instructional Needs and Teaching Them Accordingly

0 Of no importance
1 Of little importance
2 Moderately important
3 Very Important
4 Extremely Important

Table 3

SEX

	Female			Male		
	N	M	SD	N	M	SD
I	1390	3.49	.46	379	3.26	.53
II	1377	2.80	.64	376	2.73	.66
III	1397	3.43	.48	386	3.21	.54
IV	1406	3.00	.51	387	2.89	.52
V	1407	3.16	.47	384	3.00	.50
VI	1396	3.02	.50	384	2.74	.59

Table 4

ETHNICITY

	Black			Hispanic			White		
	N	M	SD	N	M	SD	N	M	SD
I	397	3.46	.47	66	3.40	.43	1213	3.44	.48
II	394	2.97	.61	65	2.81	.58	1204	2.72	.66
III	404	3.45	.45	66	3.41	.44	1221	3.36	.51
IV	403	3.14	.47	67	3.11	.46	1228	2.91	.51
V	403	3.21	.44	66	3.13	.46	1228	3.10	.48
VI	401	3.08	.48	65	3.05	.45	1223	2.92	.54

Factor I: Controlling and Influencing Student Behavior
Factor II: Clerical, Administrative and Professional Functions
Factor III: Assessing, Grading and Recording Student Learning Progress and Evaluating Instructional Effectiveness
Factor IV: Planning the Lessons, Selecting the Materials and Previewing the Instructional Program
Factor V: Implementing the Planned Instructional Program Using a Variety of Approaches
Factor VI: Identifying Students With Individual or Similar Instructional Needs and Teaching Them Accordingly

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Table 5

EDUCATION

	Bachelors			Masters +		
	N	M	SD	N	M	SD
I	1049	3.43	.48	727	3.46	.47
II	1044	2.76	.64	717	2.82	.64
III	1054	3.38	.51	735	3.40	.49
IV	1058	2.95	.50	742	3.02	.52
V	1056	3.10	.47	741	3.16	.49
VI	1052	2.94	.53	734	2.98	.53

Factor I:	Controlling and Influencing Student Behavior
Factor II:	Clerical, Administrative and Professional Functions
Factor III:	Assessing, Grading and Recording Student Learning Progress and Evaluating Instructional Effectiveness
Factor IV:	Planning the Lessons, Selecting the Materials and Previewing the Instructional Program
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4 Extremely Important

Table 6

YEARS TEACHING

	Less than 3			3 - 5			6 - 10			11 - 15			16 - 20			21 +		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
I	88	3.47	.45	186	3.40	.50	412	3.45	.51	488	3.45	.47	314	3.43	.49	279	3.44	.47
II	87	2.82	.55	188	2.81	.57	409	2.72	.66	480	2.72	.68	313	2.81	.64	275	2.92	.60
III	89	3.34	.50	191	3.36	.50	413	3.39	.55	489	3.40	.47	315	3.39	.49	285	3.38	.50
IV	90	3.00	.46	192	3.00	.50	414	2.99	.49	494	2.94	.53	315	2.95	.53	286	3.03	.51
V	91	3.14	.47	191	3.14	.44	415	3.15	.50	491	3.11	.46	316	3.11	.50	285	3.12	.48
VI	90	2.91	.56	190	2.97	.49	413	3.00	.54	490	2.94	.52	313	2.93	.56	283	2.97	.51

Factor I: Controlling and Influencing Student Behavior
Factor II: Clerical, Administrative and Professional Functions
Factor III: Assessing, Grading and Recording Student Learning Progress and Evaluating Instructional Effectiveness
Factor IV: Planning the Lessons, Selecting the Materials and Previewing the Instructional Program
Factor V: Implementing the Planned Instructional Program Using a Variety of Approaches
Factor VI: Identifying Students With Individual or Similar Instructional Needs and Teaching Them Accordingly

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3 Very Important
4 Extremely Important

Table 7

TEACHING LEVEL

	K - 8			9 - 12		
	N	M	SD	N	M	SD
I	1128	3.47	.48	423	3.36	.51
II	1121	2.78	.65	417	2.81	.66
III	1139	3.42	.49	427	3.33	.51
IV	1144	2.97	.52	427	2.99	.51
V	1142	3.14	.48	428	3.10	.48
VI	1139	3.04	.50	423	2.73	.56

Factor I:	Controlling and Influencing Student Behavior
Factor II:	Clerical, Administrative and Professional Functions
Factor III:	Assessing, Grading and Recording Student Learning Progress and Evaluating Instructional Effectiveness
Factor IV:	Planning the Lessons, Selecting the Materials and Previewing the Instructional Program
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Table 8

CURRENT ASSIGNMENT

	Preschool & K			Elementary			Special ED			Arts & Cult.			Language			Quantitative		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
I	96	3.48	.40	869	3.49	.47	128	3.51	.42	29	3.44	.51	184	3.40	.50	94	3.23	.56
II	96	2.75	.54	866	2.79	.65	127	2.84	.62	29	2.90	.61	179	2.77	.64	93	2.54	.61
III	96	3.38	.44	876	3.43	.49	129	3.33	.54	30	3.31	.62	182	3.44	.47	96	3.28	.50
IV	99	2.96	.48	880	2.97	.53	131	3.05	.46	30	3.11	.61	182	2.98	.51	96	2.85	.47
V	98	3.14	.47	878	3.14	.47	130	3.22	.48	30	3.20	.53	183	3.11	.47	96	2.95	.49
VI	96	3.00	.46	876	3.07	.49	130	3.11	.45	30	2.81	.60	182	2.85	.54	95	2.63	.59

	Physical Sci.			Social Sci.			Hist. & Gov't.			Life & Living			Vo-Tech			Health & PE		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
I	48	3.41	.46	32	3.25	.46	22	3.20	.56	49	3.40	.55	55	3.38	.35	68	3.29	.53
II	48	2.88	.58	31	2.64	.71	22	2.70	.70	48	2.84	.77	55	2.99	.52	67	2.63	.69
III	48	3.31	.48	34	3.14	.50	22	3.27	.49	49	3.27	.64	55	3.17	.50	72	3.29	.52
IV	48	3.02	.50	33	2.81	.61	23	2.83	.51	49	2.99	.54	54	3.03	.49	73	2.96	.47
V	49	3.12	.50	34	3.08	.43	24	3.00	.45	49	3.07	.65	55	3.08	.36	71	3.05	.45
VI	48	2.62	.59	33	2.65	.56	22	2.50	.60	49	2.82	.62	55	2.76	.53	71	2.74	.48

Factor I: Controlling and Influencing Student Behavior
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1 Of little importance
2 Moderately important
3 Very Important
4 Extremely Important

Table 9

CLASS SIZE

	1 - 9			10 - 14			15 - 19			20 - 24			25 - 29			30 - 34			35 +		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
I	115	3.47	.50	100	3.50	.43	145	3.44	.46	414	3.46	.47	612	3.45	.47	223	3.41	.48	61	3.29	.62
II	114	2.81	.60	96	2.86	.58	145	2.80	.70	410	2.75	.66	607	2.79	.62	223	2.76	.64	60	2.72	.75
III	116	3.35	.54	99	3.42	.52	146	3.39	.53	411	3.42	.47	623	3.39	.49	225	3.33	.49	64	3.28	.59
IV	113	3.00	.47	102	3.06	.54	145	2.99	.49	417	2.95	.49	624	2.95	.53	227	3.02	.51	66	2.98	.53
V	116	3.14	.49	101	3.22	.48	146	3.13	.48	418	3.11	.46	620	3.12	.49	227	3.13	.43	65	3.09	.53
VI	116	3.00	.53	101	3.10	.52	146	2.95	.52	413	2.97	.50	620	2.95	..54	222	2.89	.56	63	2.86	.54

Factor I: Controlling and Influencing Student Behavior
Factor II: Clerical, Administrative and Professional Functions
Factor III: Assessing, Grading and Recording Student Learning Progress and Evaluating Instructional Effectiveness
Factor IV: Planning the Lessons, Selecting the Materials and Previewing the Instructional Program
Factor V: Implementing the Planned Instructional Program Using a Variety of Approaches
Factor VI: Identifying Students With Individual or Similar Instructional Needs and Teaching Them Accordingly

APPENDIX K

PERCENTAGE OF ELEMENTARY AND SECONDARY SCHOOL TEACHERS IN EACH REGION USING EACH KNOWLEDGE AREA , AND MEAN RATINGS OF KNOWLEDGE AREAS BY TEACHERS AND BY ADMINISTRATORS

APPENDIX K

PERCENTAGE OF ELEMENTARY AND SECONDARY SCHOOL TEACHERS IN EACH REGION USING EACH KNOWLEDGE AREAS, AND MEAN RATINGS OF KNOWLEDGE AREAS

(e.g., Rated Above Zero on the Level of Typical Use Scale)

	CALIFORNIA		GEORGIA		NEW JERSEY	
	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary
1	100	100	100	99	100	98
2	100	99	100	100	99	97
3	99	98	99	100	100	94
4	98	98	99	99	99	94
5	100	100	100	100	100	98
6	82	74	78	82	88	80
7	79	74	76	78	86	79
8	76	74	77	78	86	81
9	97	92	97	94	98	87
10	97	90	97	92	98	87
11	97	89	96	91	96	87
12	87	78	90	81	92	78
13	90	81	95	80	95	82
14	78	66	83	69	88	73
15	87	75	91	76	92	75
16	82	74	91	77	92	76
17	70	66	76	70	82	69
18	79	70	82	75	87	74
19	88	88	88	88	89	84
20	91	89	96	86	96	82
21	89	82	87	86	91	84
22	91	85	89	91	95	88
23	88	86	89	90	95	88
24	83	87	85	87	89	85
25	92	84	88	85	93	86
26	77	76	82	78	85	80
27	100	100	99	98	99	98
28	99	99	99	100	99	99
29	100	100	100	100	99	99
30	100	99	100	98	98	99
31	96	86	95	94	96	95
32	96	94	96	96	96	96
33	99	97	93	94	94	93
34	100	97	96	93	97	97
35	99	95	98	95	98	97

APPENDIX K

PERCENTAGE OF ELEMENTARY AND SECONDARY SCHOOL TEACHERS IN EACH REGION USING EACH KNOWLEDGE AREAS, AND MEAN RATINGS OF KNOWLEDGE AREAS (cont.)

	CALIFORNIA		GEORGIA		NEW JERSEY	
	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary
36	82	76	91	69	87	76
37	95	83	94	75	99	82
38	77	99	78	98	75	98
39	60	87	72	84	73	81
40	67	61	64	68	70	70
41	79	72	73	72	80	76
42	96	91	96	95	98	89
43	88	74	82	88	76	80
44	73	85	82	88	78	85
45	81	78	80	84	84	78
46	95	93	96	98	96	92
47	96	91	97	100	96	91
48	94	97	96	98	94	90
49	96	92	96	95	93	86
50	83	85	83	86	79	73
51	96	97	97	99	96	92
52	98	92	94	96	93	87
53	96	95	91	91	93	94
54	60	66	70	67	75	76
55	99	98	98	98	97	94
56	80	84	88	86	87	87
57	100	100	100	100	99	97
58	100	100	100	99	99	99
59	100	99	95	97	91	89
N =	90	90	387	124	732	167

MEAN RATINGS BY TEACHERS
OF IMPORTANCE OF KNOWLEDGE AREAS

TOTAL IMPORT. MEANS & ST.DEV

TOTAL SAMPLE	N	SUM	SUM**2	MEAN	VAR(N)	SD(N)	SD(N-1)
84	1799	6112.0000	21618.0000	3.3974	0.4741	0.6885	0.6887
85	1789	6238.0000	22480.0000	3.4869	0.4075	0.6383	0.6385
86	1782	6225.0000	22579.0000	3.4933	0.4677	0.6839	0.6841
87	1779	6070.0000	21584.0000	3.4120	0.4907	0.7005	0.7007
88	1787	6519.0000	24319.0000	3.6480	0.3008	0.5485	0.5486
89	1777	4372.0000	12544.0000	2.4603	1.0059	1.0029	1.0032
90	1756	4213.0000	11967.0000	2.3992	1.0587	1.0290	1.0292
91	1763	4227.0000	12045.0000	2.3976	1.0835	1.0409	1.0412
92	1781	6140.0000	22132.0000	3.4475	0.5415	0.7358	0.7360
93	1767	5834.0000	20320.0000	3.3016	0.5989	0.7739	0.7741
94	1768	5578.0000	18858.0000	3.1550	0.7124	0.8440	0.8443
95	1763	4820.0000	14874.0000	2.7340	0.9621	0.9809	0.9812
96	1770	5179.0000	16555.0000	2.9260	0.7917	0.8898	0.8900
97	1752	4397.0000	12909.0000	2.5097	1.0695	1.0342	1.0345
98	1749	4742.0000	14426.0000	2.7113	0.8972	0.9472	0.9475
99	1750	4783.0000	14631.0000	2.7331	0.8905	0.9437	0.9439
100	1751	4159.0000	11961.0000	2.3752	1.1893	1.0906	1.0909
101	1753	4318.0000	12568.0000	2.4632	1.1020	1.0498	1.0501
102	1755	4849.0000	15163.0000	2.7630	1.0059	1.0030	1.0032
103	1758	5361.0000	17723.0000	3.0495	0.7820	0.8843	0.8845
104	1767	5085.0000	16205.0000	2.8778	0.8894	0.9431	0.9434
105	1763	5113.0000	16741.0000	2.9002	0.8012	0.8951	0.8953
106	1758	5191.0000	16745.0000	2.9528	0.8061	0.8978	0.8981
107	1757	4784.0000	14654.0000	2.7228	0.9266	0.9626	0.9629
108	1758	4891.0000	15703.0000	2.7821	0.9076	0.9527	0.9530
109	1753	4356.0000	12774.0000	2.4849	1.1123	1.0547	1.0550
110	1795	6020.0000	21094.0000	3.3538	0.5038	0.7098	0.7100
111	1783	5916.0000	20498.0000	3.3180	0.4872	0.6980	0.6982
112	1782	6008.0000	21074.0000	3.3715	0.4591	0.6776	0.6777
113	1786	5906.0000	20494.0000	3.3068	0.5397	0.7346	0.7348
114	1781	5213.0000	16715.0000	2.9270	0.8178	0.9043	0.9046
115	1768	5371.0000	17623.0000	3.0379	0.7389	0.8596	0.8599
116	1776	5083.0000	16047.0000	2.8620	0.8441	0.9188	0.9190
117	1777	5427.0000	17827.0000	3.0540	0.7050	0.8397	0.8399
118	1772	5467.0000	18133.0000	3.0852	0.7145	0.8453	0.8455
119	1745	5564.0000	19540.0000	3.1885	1.0309	1.0153	1.0156
120	1748	5966.0000	21658.0000	3.4130	0.7413	0.8610	0.8612
121	1731	5410.0000	18886.0000	3.1254	1.1426	1.0689	1.0692
122	1718	4834.0000	16030.0000	2.8137	1.4135	1.1889	1.1893
123	1745	4010.0000	11724.0000	2.2980	1.4378	1.1991	1.1994
124	1713	4120.0000	12020.0000	2.4051	1.2322	1.1101	1.1104
125	1753	5966.0000	21412.0000	3.4033	0.6320	0.7950	0.7952
126	1739	5124.0000	17088.0000	2.9465	1.1444	1.0697	1.0701
127	1734	4957.0000	16253.0000	2.8587	1.2009	1.0959	1.0962
128	1723	4365.0000	13081.0000	2.5334	1.1740	1.0835	1.0838
129	1739	5336.0000	17670.0000	3.0684	0.7457	0.8636	0.8638
130	1739	5508.0000	18704.0000	3.1673	0.7236	0.8506	0.8509
131	1734	5179.0000	16809.0000	2.9867	0.7732	0.8793	0.8796
132	1735	5185.0000	16877.0000	2.9885	0.7964	0.8924	0.8927
133	1749	4721.0000	14351.0000	2.6993	0.9193	0.9588	0.9591
134	1761	5195.0000	16565.0000	2.9500	0.7039	0.8390	0.8392
135	1758	5163.0000	16517.0000	2.9369	0.7702	0.8776	0.8779
136	1769	5032.0000	16196.0000	2.8445	1.0640	1.0315	1.0318
137	1776	3637.0000	9701.0000	2.0479	1.2685	1.1263	1.1266
138	1778	5736.0000	19728.0000	3.2261	0.6879	0.8294	0.8296
139	1769	4443.0000	13385.0000	2.5116	1.2583	1.1218	1.1221
140	1782	6205.0000	22415.0000	3.4820	0.4539	0.6738	0.6739
141	1793	6573.0000	24735.0000	3.6659	0.3563	0.5969	0.5971
142	1779	5661.0000	19387.0000	3.1821	0.7718	0.8785	0.8788

MEAN RATINGS BY TEACHERS
OF RELATIONSHIP OF KNOWLEDGE AREAS

TOTAL RELATIONSHIP MEANS & ST.DEV

TOTAL SAMPLE	N	SUM	SUM**2	MEAN	VAR(N)	SD(N)	SD(N-1)
84	1789	3840.0000	9372.0000	2.1465	0.6314	0.7946	0.7948
85	1777	4065.0000	10263.0000	2.2876	0.5425	0.7366	0.7368
86	1765	4148.0000	10682.0000	2.3501	0.5290	0.7273	0.7275
87	1764	4146.0000	10652.0000	2.3503	0.5144	0.7173	0.7175
88	1758	4156.0000	10824.0000	2.3641	0.5683	0.7538	0.7540
89	1752	3359.0000	7661.0000	1.9172	0.6969	0.8348	0.8351
90	1741	3354.0000	7728.0000	1.9265	0.7275	0.8529	0.8532
91	1736	3398.0000	7934.0000	1.9574	0.7390	0.8596	0.8599
92	1757	3932.0000	9870.0000	2.2379	0.6093	0.7806	0.7808
93	1741	3810.0000	9306.0000	2.1884	0.5906	0.7685	0.7687
94	1746	3769.0000	9187.0000	2.1586	0.6020	0.7759	0.7761
95	1733	3475.0000	8131.0000	2.0052	0.6711	0.8192	0.8194
96	1749	3503.0000	8077.0000	2.0029	0.6066	0.7789	0.7791
97	1738	3317.0000	7541.0000	1.9085	0.6965	0.8345	0.8348
98	1726	3429.0000	7919.0000	1.9867	0.6412	0.8007	0.8010
99	1728	3425.0000	7883.0000	1.9821	0.6334	0.7958	0.7961
100	1729	3238.0000	7404.0000	1.8728	0.7750	0.8804	0.8806
101	1728	3315.0000	7615.0000	1.9184	0.7266	0.8524	0.8526
102	1732	3578.0000	8466.0000	2.0658	0.6204	0.7876	0.7879
103	1736	3648.0000	8730.0000	2.1014	0.6130	0.7829	0.7832
104	1738	3545.0000	8317.0000	2.0397	0.6365	0.7978	0.7980
105	1740	3579.0000	8413.0000	2.0569	0.6042	0.7773	0.7775
106	1729	3607.0000	8547.0000	2.0862	0.5912	0.7689	0.7691
107	1726	3440.0000	7956.0000	1.9930	0.6373	0.7983	0.7985
108	1735	3476.0000	8036.0000	2.0035	0.6179	0.7860	0.7863
109	1725	3282.0000	7490.0000	1.9026	0.7221	0.8498	0.8500
110	1775	4056.0000	10236.0000	2.2851	0.5452	0.7384	0.7386
111	1764	4069.0000	10317.0000	2.3067	0.5278	0.7265	0.7267
112	1756	3973.0000	9965.0000	2.2625	0.5558	0.7455	0.7457
113	1767	3880.0000	9550.0000	2.1958	0.5830	0.7636	0.7638
114	1750	3392.0000	7776.0000	1.9383	0.6865	0.8285	0.8288
115	1744	3406.0000	7858.0000	1.9530	0.6916	0.8316	0.8319
116	1753	3277.0000	7361.0000	1.8694	0.7046	0.8394	0.8396
117	1756	3576.0000	8424.0000	2.0364	0.6502	0.8063	0.8065
118	1746	3462.0000	8060.0000	1.9828	0.6847	0.8275	0.8277
119	1707	3677.0000	9109.0000	2.1541	0.6962	0.8344	0.8347
120	1706	3812.0000	9614.0000	2.2345	0.6426	0.8016	0.8018
121	1699	3644.0000	9036.0000	2.1448	0.7183	0.8475	0.8478
122	1678	3379.0000	8225.0000	2.0137	0.8467	0.9201	0.9204
123	1696	2966.0000	6792.0000	1.7488	0.9463	0.9728	0.9731
124	1675	3063.0000	7023.0000	1.8287	0.8489	0.9213	0.9216
125	1717	3972.0000	10170.0000	2.3133	0.5716	0.7560	0.7563
126	1690	3594.0000	8898.0000	2.1266	0.7425	0.8617	0.8620
127	1679	3457.0000	8479.0000	2.0590	0.7809	0.8837	0.8840
128	1692	3111.0000	7033.0000	1.8387	0.7760	0.8809	0.8812
129	1712	3679.0000	8885.0000	2.1489	0.5719	0.7562	0.7564
130	1718	3775.0000	9277.0000	2.1973	0.5717	0.7561	0.7563
131	1708	3615.0000	8647.0000	2.1165	0.5830	0.7636	0.7638
132	1697	3511.0000	8295.0000	2.0689	0.6075	0.7794	0.7797
133	1712	3409.0000	8085.0000	1.9912	0.7575	0.8704	0.8706
134	1729	3632.0000	8666.0000	2.1006	0.5995	0.7743	0.7745
135	1726	3427.0000	7911.0000	1.9855	0.6412	0.8007	0.8010
136	1749	3573.0000	8533.0000	2.0429	0.7054	0.8399	0.8401
137	1755	2681.0000	5661.0000	1.5276	0.8920	0.9444	0.9447
138	1747	3848.0000	9538.0000	2.2026	0.6081	0.7798	0.7800
139	1743	3172.0000	7220.0000	1.8199	0.8304	0.9113	0.9115
140	1754	4277.0000	11289.0000	2.4384	0.4902	0.7002	0.7004
141	1767	4497.0000	12247.0000	2.5450	0.4540	0.6738	0.6740
142	1753	3974.0000	10154.0000	2.2670	0.6532	0.8082	0.8084

MEAN RATINGS BY TEACHERS
OF LEVEL OF USE OF KNOWLEDGE AREAS

TOTAL LEVEL OF USE MEANS & ST.DEV

TOTAL SAMPLE	N	SUM	SUM**2	MEAN	VAR(N)	SD(N)	SD(N-1)
84	1746	4931.0000	15879.0000	2.8242	1.1186	1.0576	1.0579
85	1742	5067.0000	16623.0000	2.9087	1.0818	1.0401	1.0404
86	1727	4641.0000	14851.0000	2.6873	1.3776	1.1737	1.1741
87	1731	4831.0000	15883.0000	2.7909	1.3867	1.1776	1.1779
88	1719	4617.0000	14815.0000	2.6859	1.4045	1.1851	1.1855
89	1741	3133.0000	8607.0000	1.7995	1.7054	1.3059	1.3063
90	1734	3212.0000	9094.0000	1.8524	1.8133	1.3466	1.3470
91	1738	3374.0000	9890.0000	1.9413	1.9218	1.3863	1.3867
92	1737	4263.0000	13317.0000	2.4542	1.6434	1.2820	1.2823
93	1721	4101.0000	12507.0000	2.3829	1.5890	1.2606	1.2609
94	1741	4219.0000	13135.0000	2.4233	1.6720	1.2931	1.2934
95	1716	3641.0000	10759.0000	2.1218	1.7678	1.3296	1.3300
96	1743	3568.0000	10060.0000	2.0470	1.5813	1.2575	1.2578
97	1734	3197.0000	8995.0000	1.8437	1.7881	1.3372	1.3376
98	1725	3428.0000	9676.0000	1.9872	1.6601	1.2885	1.2888
99	1735	3360.0000	9434.0000	1.9366	1.6870	1.2989	1.2992
100	1746	2905.0000	8077.0000	1.6638	1.8578	1.3630	1.3634
101	1744	3095.0000	8609.0000	1.7747	1.7869	1.3368	1.3372
102	1736	3824.0000	11720.0000	2.2028	1.8990	1.3780	1.3784
103	1740	4146.0000	12794.0000	2.3828	1.6753	1.2943	1.2947
104	1742	3496.0000	9994.0000	2.0069	1.7095	1.3075	1.3078
105	1743	3745.0000	10869.0000	2.1486	1.6193	1.2725	1.2729
106	1742	3890.0000	11472.0000	2.2331	1.5990	1.2645	1.2649
107	1744	3569.0000	10333.0000	2.0464	1.7369	1.3179	1.3183
108	1748	3575.0000	10177.0000	2.0452	1.6393	1.2803	1.2807
109	1744	3346.0000	9648.0000	1.9186	1.8512	1.3606	1.3610
110	1744	5026.0000	16692.0000	2.8819	1.2659	1.1251	1.1254
111	1729	4904.0000	15966.0000	2.8363	1.1895	1.0907	1.0910
112	1724	5051.0000	16677.0000	2.9298	1.0896	1.0438	1.0442
113	1724	4902.0000	16056.0000	2.8434	1.2284	1.1083	1.1086
114	1711	4112.0000	12330.0000	2.4033	1.4306	1.1961	1.1964
115	1715	4083.0000	12127.0000	2.3809	1.4031	1.1845	1.1849
116	1712	4294.0000	13276.0000	2.5082	1.4637	1.2098	1.2102
117	1719	4635.0000	14767.0000	2.6963	1.3202	1.1490	1.1493
118	1706	4539.0000	14333.0000	2.6606	1.3227	1.1501	1.1504
119	1699	3868.0000	12214.0000	2.2766	2.0059	1.4163	1.4167
120	1696	4236.0000	13557.0000	2.4976	1.7524	1.3238	1.3242
121	1696	3720.0000	11894.0000	2.1934	2.2020	1.4839	1.4843
122	1695	3344.0000	10522.0000	1.9729	2.3155	1.5217	1.5221
123	1729	2794.0000	8134.0000	1.6160	2.0931	1.4468	1.4472
124	1702	3043.0000	8697.0000	1.7879	1.9133	1.3832	1.3836
125	1719	4239.0000	13235.0000	2.4660	1.6182	1.2721	1.2725
126	1713	3629.0000	11369.0000	2.1185	2.1488	1.4659	1.4663
127	1702	3470.0000	10608.0000	2.0388	2.0761	1.4409	1.4413
128	1703	3354.0000	9726.0000	1.9695	1.8323	1.3536	1.3540
129	1709	4350.0000	13554.0000	2.5453	1.4522	1.2051	1.2054
130	1714	4529.0000	14361.0000	2.6424	1.3966	1.1818	1.1821
131	1703	4357.0000	13603.0000	2.5584	1.4421	1.2009	1.2012
132	1697	4135.0000	12601.0000	2.4367	1.4882	1.2199	1.2203
133	1732	3377.0000	9973.0000	1.9498	1.9565	1.3987	1.3991
134	1723	4399.0000	13767.0000	2.5531	1.4718	1.2132	1.2135
135	1725	3854.0000	11062.0000	2.2342	1.4211	1.1921	1.1924
136	1691	4056.0000	12582.0000	2.3986	1.6874	1.2990	1.2994
137	1710	2777.0000	7799.0000	1.6240	1.9235	1.3869	1.3873
138	1709	4645.0000	15013.0000	2.7180	1.3973	1.1821	1.1824
139	1699	3721.0000	11323.0000	2.1901	1.8679	1.3667	1.3671
140	1716	5018.0000	16782.0000	2.9242	1.2285	1.1084	1.1087
141	1719	5330.0000	18422.0000	3.1006	1.1027	1.0501	1.0504
142	1725	4951.0000	17033.0000	2.8701	1.6365	1.2792	1.2796

MEAN RATINGS BY ADMINISTRATORS OF IMPORTANCE OF KNOWLEDGE AREAS

IMPORT. MEANS.& ST.DEV

TOTAL SAMPLE	N	SUM	SUM**2	MEAN	VAR(N)	SD(N)	SD(N-1)
84	88	305.0000	1093.0000	3.4659	0.4079	0.6387	0.6424
85	88	311.0000	1137.0000	3.5341	0.4307	0.6562	0.6600
86	88	315.0000	1161.0000	3.5795	0.3800	0.6165	0.6200
87	88	306.0000	1102.0000	3.4773	0.4313	0.6567	0.6605
88	88	321.0000	1203.0000	3.6477	0.3645	0.6038	0.6072
89	88	223.0000	617.0000	2.5341	0.5897	0.7679	0.7724
90	88	211.0000	567.0000	2.3977	0.6941	0.8331	0.8379
91	88	213.0000	585.0000	2.4205	0.7891	0.8883	0.8934
92	88	305.0000	1087.0000	3.4659	0.3397	0.5829	0.5862
93	88	298.0000	1044.0000	3.3864	0.3962	0.6294	0.6330
94	88	279.0000	914.0000	3.1705	0.3914	0.6256	0.6292
95	88	249.0000	769.0000	2.8295	0.7321	0.8558	0.8607
96	87	255.0000	797.0000	2.9310	0.5700	0.7550	0.7593
97	87	217.0000	627.0000	2.4943	0.9856	0.9928	0.9985
98	87	244.0000	752.0000	2.8046	0.7779	0.8820	0.8871
99	87	237.0000	721.0000	2.7241	0.8664	0.9308	0.9362
100	87	223.0000	655.0000	2.5632	0.9586	0.9791	0.9848
101	87	228.0000	682.0000	2.6207	0.9711	0.9854	0.9911
102	87	261.0000	851.0000	3.0000	0.8046	0.8970	0.9022
103	87	265.0000	873.0000	3.0460	0.7565	0.8698	0.8748
104	86	273.0000	913.0000	3.1744	0.5393	0.7344	0.7387
105	86	260.0000	840.0000	3.0233	0.6274	0.7921	0.7967
106	86	266.0000	874.0000	3.0930	0.5960	0.7720	0.7765
107	86	250.0000	792.0000	2.9070	0.7588	0.8711	0.8762
108	86	257.0000	823.0000	2.9884	0.6394	0.7996	0.8043
109	86	239.0000	737.0000	2.7791	0.8465	0.9201	0.9255
110	87	305.0000	1109.0000	3.5057	0.4564	0.6759	0.6798
111	87	302.0000	1086.0000	3.4713	0.4331	0.6581	0.6619
112	86	301.0000	1087.0000	3.5000	0.3895	0.6241	0.6278
113	87	299.0000	1067.0000	3.4368	0.4529	0.6730	0.6769
114	87	248.0000	786.0000	2.8506	0.9087	0.9533	0.9588
115	87	270.0000	902.0000	3.1034	0.7364	0.8582	0.8631
116	87	253.0000	807.0000	2.9080	0.8191	0.9051	0.9103
117	86	273.0000	917.0000	3.1744	0.5859	0.7654	0.7699
118	87	260.0000	838.0000	2.9885	0.7010	0.8373	0.8421
119	87	275.0000	931.0000	3.1609	0.7097	0.8425	0.8473
120	87	291.0000	1021.0000	3.3448	0.5478	0.7401	0.7444
121	87	269.0000	923.0000	3.0920	1.0490	1.0242	1.0302
122	86	233.0000	741.0000	2.7093	1.2760	1.1296	1.1362
123	87	212.0000	610.0000	2.4368	1.0736	1.0361	1.0421
124	86	207.0000	581.0000	2.4070	0.9623	0.9810	0.9867
125	87	299.0000	1065.0000	3.4368	0.4299	0.6557	0.6595
126	87	252.0000	800.0000	2.8966	0.8054	0.8974	0.9026
127	87	243.0000	751.0000	2.7931	0.8308	0.9115	0.9167
128	88	223.0000	663.0000	2.5341	1.1125	1.0547	1.0608
129	88	289.0000	1001.0000	3.2841	0.5897	0.7679	0.7724
130	88	291.0000	1005.0000	3.3068	0.4854	0.6967	0.7007
131	88	277.0000	935.0000	3.1477	0.7168	0.8466	0.8515
132	88	264.0000	846.0000	3.0000	0.6136	0.7833	0.7878
133	88	249.0000	765.0000	2.8295	0.6869	0.8288	0.8335
134	88	264.0000	842.0000	3.0000	0.5682	0.7538	0.7581
135	88	244.0000	748.0000	2.7727	0.8120	0.9011	0.9063
136	88	286.0000	996.0000	3.2500	0.7557	0.8693	0.8743
137	87	201.0000	555.0000	2.3103	1.0416	1.0206	1.0265
138	88	294.0000	1030.0000	3.3409	0.5429	0.7368	0.7410
139	88	243.0000	771.0000	2.7614	1.1362	1.0659	1.0721
140	88	325.0000	1229.0000	3.6932	0.3263	0.5712	0.5745
141	88	330.0000	1262.0000	3.7500	0.2784	0.5276	0.5307
142	88	285.0000	987.0000	3.2386	0.7271	0.8527	0.8576

MEAN RATINGS BY ADMINISTRATORS
OF RELATIONSHIP OF KNOWLEDGE AREAS

RELATIONSHIP MEANS & ST.DEV

TOTAL SAMPLE	N	SUM	SUM**2	MEAN	VAR(N)	SD(N)	SD(N-1)
84	87	205.0000	523.0000	2.3563	0.4592	0.6777	0.6816
85	88	222.0000	544.0000	2.5227	0.3858	0.6212	0.6247
86	88	229.0000	627.0000	2.6023	0.3532	0.5943	0.5977
87	88	223.0000	597.0000	2.5341	0.3625	0.6021	0.6055
88	88	222.0000	602.0000	2.5227	0.4768	0.6905	0.6944
89	88	185.0000	423.0000	2.1023	0.3673	0.6723	0.6759
90	88	186.0000	436.0000	2.1136	0.4871	0.6979	0.7019
91	88	188.0000	448.0000	2.1364	0.5269	0.7259	0.7300
92	88	214.0000	558.0000	2.4318	0.4272	0.6536	0.6573
93	88	205.0000	521.0000	2.3295	0.4937	0.7026	0.7066
94	88	211.0000	543.0000	2.3977	0.4214	0.6491	0.6528
95	88	188.0000	446.0000	2.1364	0.5041	0.7100	0.7141
96	87	188.0000	450.0000	2.1609	0.5028	0.7091	0.7132
97	87	176.0000	416.0000	2.0230	0.6891	0.8301	0.8349
98	87	194.0000	480.0000	2.2299	0.5449	0.7381	0.7424
99	87	181.0000	427.0000	2.0805	0.5797	0.7614	0.7658
100	87	173.0000	413.0000	1.9885	0.7930	0.8905	0.8957
101	87	181.0000	431.0000	2.0805	0.6257	0.7910	0.7956
102	87	203.0000	525.0000	2.3333	0.5900	0.7681	0.7726
103	87	197.0000	487.0000	2.2644	0.4703	0.6858	0.6898
104	86	199.0000	493.0000	2.3140	0.3782	0.6150	0.6186
105	85	194.0000	476.0000	2.2824	0.3909	0.6252	0.6289
106	84	196.0000	492.0000	2.3333	0.4127	0.6424	0.6463
107	86	193.0000	475.0000	2.2442	0.4869	0.6978	0.7019
108	86	183.0000	433.0000	2.1279	0.5069	0.7120	0.7161
109	86	185.0000	447.0000	2.1512	0.5702	0.7551	0.7595
110	37	221.0000	591.0000	2.5402	0.3403	0.5834	0.5868
111	87	221.0000	601.0000	2.5402	0.4553	0.6747	0.6787
112	86	218.0000	590.0000	2.5349	0.4348	0.6594	0.6633
113	87	205.0000	525.0000	2.3563	0.4822	0.6944	0.6985
114	86	174.0000	406.0000	2.0233	0.6274	0.7921	0.7967
115	87	184.0000	440.0000	2.1149	0.5845	0.7645	0.7690
116	87	174.0000	404.0000	2.0000	0.6437	0.8023	0.8069
117	86	192.0000	470.0000	2.2326	0.4808	0.6934	0.6975
118	87	178.0000	426.0000	2.0460	0.7105	0.8429	0.8478
119	84	197.0000	501.0000	2.3452	0.4641	0.6813	0.6854
120	85	207.0000	539.0000	2.4353	0.4105	0.6407	0.6445
121	84	191.0000	491.0000	2.2738	0.6750	0.8216	0.8265
122	83	170.0000	414.0000	2.0482	0.7929	0.8904	0.8958
123	87	152.0000	348.0000	1.7471	0.9475	0.9734	0.9791
124	86	166.0000	386.0000	1.9302	0.7626	0.8733	0.8784
125	86	216.0000	572.0000	2.5116	0.3429	0.5856	0.5890
126	86	184.0000	452.0000	2.1375	0.6782	0.8235	0.8284
127	87	180.0000	476.0000	2.0690	0.6159	0.7848	0.7894
128	87	164.0000	386.0000	1.8851	0.8833	0.9399	0.9453
129	88	208.0000	530.0000	2.3636	0.4360	0.6603	0.6640
130	88	206.0000	516.0000	2.3409	0.3838	0.6195	0.6231
131	88	210.0000	546.0000	2.3864	0.5098	0.7140	0.7181
132	87	196.0000	486.0000	2.2529	0.5108	0.7147	0.7188
133	85	194.0000	484.0000	2.2824	0.4850	0.6964	0.7005
134	87	205.0000	523.0000	2.3563	0.4592	0.6777	0.6816
135	88	169.0000	374.0000	1.9205	0.6187	0.7866	0.7911
136	88	211.0000	545.0000	2.3977	0.4441	0.6664	0.6702
137	88	148.0000	312.0000	1.6818	0.7169	0.8467	0.8516
138	88	223.0000	597.0000	2.5341	0.3625	0.6021	0.6055
139	83	179.0000	437.0000	2.0341	0.8284	0.9102	0.9154
140	88	241.0000	681.0000	2.7386	0.2385	0.4884	0.4912
141	87	239.0000	675.0000	2.7471	0.2119	0.4603	0.4630
142	87	213.0000	569.0000	2.4483	0.5462	0.7390	0.7433

MEAN RATINGS BY ADMINISTRATORS OF LEVEL OF USE OF KNOWLEDGE AREAS

LEVEL OF USE MEANS & ST.DEV

TOTAL SAMPLE	N	SUM	SUM**2	MEAN	VAR(N)	SD(N)	SD(N-1)
84	87	248.0000	800.0000	2.8506	1.0696	1.0342	1.0402
85	88	271.0000	915.0000	3.0795	0.9141	0.9561	0.9616
86	88	243.0000	773.0000	2.7614	1.1590	1.0766	1.0827
87	88	258.0000	858.0000	2.9318	1.1544	1.0744	1.0806
88	87	249.0000	829.0000	2.8621	1.3373	1.1564	1.1631
89	88	158.0000	394.0000	1.7955	1.2536	1.1196	1.1261
90	88	182.0000	506.0000	2.0682	1.4954	1.2228	1.2299
91	87	191.0000	569.0000	2.1954	1.7204	1.3117	1.3193
92	86	219.0000	661.0000	2.5465	1.2013	1.0960	1.1025
93	86	213.0000	635.0000	2.4767	1.2495	1.1178	1.1243
94	86	223.0000	709.0000	2.5930	1.5204	1.2331	1.2403
95	85	204.0000	614.0000	2.4000	1.4635	1.2098	1.2169
96	86	208.0000	632.0000	2.4186	1.4992	1.2244	1.2316
97	86	187.0000	549.0000	2.1744	1.6556	1.2867	1.2943
98	86	206.0000	626.0000	2.3953	1.5414	1.2415	1.2488
99	86	186.0000	522.0000	2.1628	1.3921	1.1799	1.1868
100	86	185.0000	547.0000	2.1512	1.7330	1.3164	1.3241
101	85	177.0000	507.0000	2.0824	1.6285	1.2761	1.2837
102	86	239.0000	787.0000	2.7791	1.4279	1.1950	1.2020
103	86	240.0000	784.0000	2.7907	1.3283	1.1525	1.1593
104	85	221.0000	691.0000	2.6000	1.3694	1.1702	1.1772
105	85	217.0000	653.0000	2.5529	1.1648	1.0793	1.0857
106	85	225.0000	695.0000	2.6471	1.1696	1.0815	1.0879
107	85	207.0000	635.0000	2.4353	1.5399	1.2409	1.2483
108	85	196.0000	562.0000	2.3059	1.2947	1.1378	1.1446
109	85	205.0000	623.0000	2.4118	1.5128	1.2300	1.2373
110	85	261.0000	885.0000	3.0706	0.9833	0.9916	0.9975
111	85	270.0000	938.0000	3.1765	0.9453	0.9723	0.9781
112	84	275.0000	965.0000	3.2738	0.7703	0.8776	0.8829
113	84	261.0000	897.0000	3.1071	1.0242	1.0120	1.0181
114	83	192.0000	554.0000	2.3133	1.3236	1.1505	1.1575
115	85	199.0000	575.0000	2.3412	1.2836	1.1330	1.1397
116	85	219.0000	691.0000	2.5765	1.4912	1.2212	1.2284
117	84	235.0000	755.0000	2.7976	1.1614	1.0777	1.0842
118	84	227.0000	721.0000	2.7024	1.2805	1.1316	1.1384
119	83	227.0000	743.0000	2.7349	1.4719	1.2132	1.2206
120	84	231.0000	759.0000	2.7500	1.4732	1.2138	1.2211
121	83	219.0000	721.0000	2.6386	1.7248	1.3133	1.3213
122	82	196.0000	618.0000	2.3902	1.8733	1.3503	1.3586
123	86	149.0000	389.0000	1.7326	1.5215	1.2335	1.2407
124	85	183.0000	535.0000	2.1529	1.6590	1.2880	1.2957
125	85	222.0000	690.0000	2.6118	1.2963	1.1386	1.1453
126	86	204.0000	674.0000	2.3721	1.6290	1.2763	1.2838
127	86	190.0000	568.0000	2.2093	1.7236	1.3129	1.3206
128	87	187.0000	543.0000	2.1494	1.6214	1.2733	1.2807
129	87	234.0000	740.0000	2.6897	1.2715	1.1276	1.1341
130	87	234.0000	722.0000	2.6897	1.0646	1.0318	1.0378
131	87	227.0000	701.0000	2.6092	1.2496	1.1178	1.1243
132	86	214.0000	636.0000	2.4884	1.2034	1.0970	1.1034
133	86	202.0000	602.0000	2.3488	1.4830	1.2178	1.2249
134	86	222.0000	692.0000	2.5814	1.3829	1.1760	1.1829
135	86	191.0000	521.0000	2.2209	1.1256	1.0609	1.0672
136	86	226.0000	668.0000	2.6279	1.0441	1.0460	1.0521
137	86	151.0000	399.0000	1.7558	1.5567	1.2477	1.2550
138	86	252.0000	854.0000	2.9302	1.3440	1.1593	1.1661
139	86	193.0000	567.0000	2.2442	1.5567	1.2477	1.2550
140	86	272.0000	954.0000	3.1628	1.0898	1.0439	1.0500
141	86	275.0000	957.0000	3.1977	0.9028	0.9502	0.9557
142	86	273.0000	979.0000	3.1744	1.3068	1.1431	1.1499

APPENDIX L

STATISTICAL LINKAGES BETWEEN KNOWLEDGE AREAS AND JOB TASKS FOR ELEMENTARY TEACHERS AND FOR SECONDARY TEACHERS

Correlation of Factor Scores With Knowledge Area Ratings of Elementary Teachers (Combined Districts Equally Weighted)

	CONTENT AREAS		JOB FACTORS					
Item No.	Description (Abbreviated)		I	II	III	IV	V	VI
1	Communication Skills	Listening	.47	.37	.40	.29	.37	.39
2		Reading	.39	.31	.42	.32	.33	.37
3		Writing (Evaluation)	.40	.27	.41	.27	.35	.42
4		Writing (Essay)	.41	.30	.40	.28	.37	.39
5		Speaking	.41	.26	.35	.28	.31	.30
6	Literature & Fine Arts	Basic Elements	.24	.40	.20	.34	.38	.37
7		Analysis and Interpretation	.21	.37	.20	.33	.33	.33
8		Relating to Context	.19	.39	.20	.36	.37	.32
9	Maths	Basic Relationships	.32	.21	.38	.20	.29	.33
10		Measurement	.32	.29	.33	.28	.34	.32
11		Interpreting Graphics, etc.	.31	.32	.36	.30	.35	.35
12	Science	Understanding Energy	.22	.37	.19	.31	.36	.29
13		Functions of Living Things	.33	.38	.29	.32	.36	.32
14		Classification Systems	.19	.34	.20	.30	.32	.29
15		Organisms and Environment	.23	.35	.20	.30	.34	.29
16		EARTH: Origins and Components	.23	.35	.21	.28	.33	.27
17		MATTER: Atoms and Substances	.15	.36	.12	.25	.30	.20
18		FORCES: Acting on Matter	.20	.32	.16	.28	.32	.21
19		Scientific Method	.24	.34	.18	.30	.33	.24
20		Role of Science in Life	.40	.40	.31	.31	.40	.34
21	Social Studies	U.S. History	.27	.33	.25	.26	.34	.30
22		Characteristics of Societies	.30	.36	.28	.29	.39	.35
23		Culture and Individual	.28	.37	.27	.30	.38	.35
24		Economics	.21	.35	.19	.29	.35	.28
25		Geography	.28	.37	.30	.32	.41	.35
26		Social Science	.21	.39	.19	.33	.35	.31
27	Professional Education	Instructional Planning	.39	.34	.42	.38	.40	.40
28		Implementing Plans	.38	.33	.40	.37	.40	.39
29		Evaluating Achievement	.46	.40	.55	.42	.50	.51
30		Interacting with Others	.42	.40	.43	.39	.44	.45
31		State/U.S. Laws Re: Education	.36	.43	.32	.35	.38	.39
32		Students' Constitutional Rights	.39	.45	.33	.36	.39	.42
33		Outside Influences on Teachers	.35	.40	.28	.31	.33	.38
34		Outside Influences on Students	.37	.37	.26	.30	.37	.37
35		Professionalism	.34	.40	.32	.30	.35	.37
36	Teaching "Levels" (Content)	Early Childhood Education	.28	.27	.24	.25	.26	.37
37		Elementary Education	.31	.21	.31	.19	.24	.32
38		Secondary Education	.13	.20	.10	.18	.16	.10
39		Adult Education	.16	.27	.17	.22	.20	.25
40		Bilingual/Multicultural Education	.25	.36	.20	.35	.35	.34
41		Global Education	.26	.36	.27	.30	.37	.34
42		Reading/Language Arts Education	.32	.20	.31	.22	.27	.36
43		Special Education	.29	.29	.25	.22	.32	.33
44		Vocational and Career Education	.23	.31	.20	.26	.33	.26
45	Human Development	Lifespan Development	.32	.40	.28	.33	.39	.41
46		Learning	.38	.41	.38	.40	.47	.42
47		Emotional and Social	.47	.43	.39	.37	.46	.42
48		Interpersonal Dynamics	.35	.38	.28	.35	.41	.37
49		Physical Development	.39	.42	.34	.39	.45	.42
50	Other Areas	Computer Application	.22	.28	.18	.18	.25	.26
51		Tests and Measurement	.35	.38	.39	.29	.35	.40
52		Health and First Aid	.34	.45	.28	.35	.40	.37
53	Professional Studies	Methodology	.26	.36	.29	.35	.37	.34
54		History of Education	.18	.42	.20	.35	.32	.32
55		Curriculum	.32	.36	.35	.38	.39	.41
56		Philosophy of Education	.20	.36	.20	.33	.30	.34
57		Instructional Techniques	.41	.32	.38	.31	.38	.37
58		Classroom Management	.44	.26	.41	.26	.31	.33
59		Curriculum Design	.28	.44	.30	.40	.35	.41

Factor I: Controlling and Influencing Student Behavior
Factor II: Clerical, Administrative and Professional Functions
Factor III: Assessing, Grading and Recording Student Learning Progress and Evaluating Instructional Effectiveness
Factor IV: Planning the Lessons, Selecting the Materials and Previewing the Instructional Program
Factor V: Implementing the Planned Instructional Program Using a Variety of Approaches
Factor VI: Identifying Students With Individual or Similar Instructional Needs and Teaching Them Accordingly

Correlation of Factor Scores With Knowledge Area Ratings of Secondary Teachers (Combined Districts Equally Weighted)

CONTENT AREAS			JOB FACTORS					
Item No.	Description (Abbreviated)		I	II	III	IV	V	VI
1	Communication Skills	Listening	.44	.33	.39	.31	.33	.22
2		Reading	.42	.29	.47	.35	.33	.23
3		Writing (Evaluation)	.44	.31	.46	.27	.33	.30
4		Writing (Essay)	.41	.33	.44	.29	.33	.31
5		Speaking	.33	.18	.32	.21	.32	.23
6	Literature & Fine Arts	Basic Elements	.23	.24	.14	.11	.21	.32
7		Analysis and Interpretation	.20	.23	.12	.15	.21	.33
8		Relating to Context	.20	.22	.09	.13	.20	.29
9	Maths	Basic Relationships	.30	.24	.28	.18	.23	.19
10		Measurement	.32	.32	.29	.25	.31	.24
11		Interpreting Graphics, etc.	.31	.29	.27	.25	.28	.25
12	Science	Understanding Energy	.31	.35	.18	.30	.29	.26
13		Functions of Living Things	.32	.33	.25	.32	.35	.30
14		Classification Systems	.20	.29	.13	.30	.25	.31
15		Organisms and Environment	.22	.28	.15	.27	.24	.30
16		EARTH: Origins and Components	.22	.32	.21	.25	.27	.30
17		MATTER: Atoms and Substances	.18	.30	.16	.23	.25	.27
18		FORCES: Acting on Matter	.21	.31	.19	.24	.28	.28
19		Scientific Method	.23	.26	.23	.26	.32	.17
20		Role of Science in Life	.34	.36	.21	.31	.35	.26
21	Social Studies	U.S. History	.24	.30	.28	.17	.24	.25
22		Characteristics of Societies	.33	.32	.26	.22	.26	.27
23		Culture and Individual	.32	.33	.28	.23	.26	.30
24		Economics	.26	.33	.23	.20	.23	.20
25		Geography	.27	.27	.24	.18	.24	.22
26		Social Science	.27	.35	.19	.21	.26	.29
27	Professional Education	Instructional Planning	.45	.45	.46	.46	.47	.35
28		Implementing Plans	.47	.43	.48	.41	.45	.36
29		Evaluating Achievement	.47	.41	.47	.39	.45	.30
30		Interacting with Others	.42	.40	.30	.33	.39	.35
31		State/U.S. Laws Re: Education	.43	.50	.38	.39	.35	.43
32		Students' Constitutional Rights	.39	.49	.33	.37	.35	.38
33		Outside Influences on Teachers	.41	.48	.33	.38	.34	.40
34		Outside Influences on Students	.43	.46	.29	.33	.29	.39
35		Professionalism	.37	.47	.33	.45	.33	.39
36	Teaching "Levels" (Content)	Early Childhood Education	.17	.29	.08	.17	.15	.20
37		Elementary Education	.20	.29	.13	.20	.20	.22
38		Secondary Education	.42	.36	.37	.40	.38	.25
39		Adult Education	.27	.37	.26	.25	.26	.30
40		Bilingual/Multicultural Education	.24	.35	.22	.24	.27	.31
41		Global Education	.19	.32	.20	.23	.27	.36
42		Reading/Language Arts Education	.32	.32	.42	.28	.38	.29
43		Special Education	.29	.40	.30	.38	.34	.38
44		Vocational and Career Education	.36	.42	.38	.41	.45	.45
45	Human Development	Lifespan Development	.33	.40	.21	.36	.35	.39
46		Learning	.34	.39	.32	.37	.35	.31
47		Emotional and Social	.38	.41	.34	.43	.40	.38
48		Interpersonal Dynamics	.32	.35	.22	.36	.36	.34
49		Physical Development	.37	.42	.28	.37	.35	.36
50	Other Areas	Computer Application	.19	.26	.32	.25	.32	.32
51		Tests and Measurement	.35	.42	.40	.36	.38	.34
52		Health and First Aid	.38	.41	.30	.40	.38	.36
53	Professional Studies	Methodology	.28	.32	.30	.35	.32	.32
54		History of Education	.18	.41	.16	.33	.26	.41
55		Curriculum	.42	.50	.43	.52	.47	.42
56		Philosophy of Education	.23	.37	.20	.34	.31	.37
57		Instructional Techniques	.41	.32	.41	.37	.39	.28
58		Classroom Management	.36	.25	.36	.30	.32	.23
59		Curriculum Design	.42	.44	.35	.48	.40	.40

Factor I: Controlling and Influencing Student Behavior
Factor II: Clerical, Administrative and Professional Functions
Factor III: Assessing, Grading and Recording Student Learning Progress and Evaluating Instructional Effectiveness
Factor IV: Planning the Lessons, Selecting the Materials and Previewing the Instructional Program
Factor V: Implementing the Planned Instructional Program Using a Variety of Approaches
Factor VI: Identifying Students with Individual or Similar Instructional Needs and Teaching Them Accordingly